

Application of Process Factors to the Inter-video modality

– An Examination of Expectations and the Therapeutic relationship
in Therapy Conducted Through a Video-link

A thesis submitted in partial fulfilment of the requirements for the Degree of Doctor of
Philosophy in Psychology

Department of Psychology

The University of Canterbury

Signe Uldall Wiingaard

2016

Index

Abstract	iv
Introduction	2
Terminology and Definitions	2
E-therapy Outcome	5
Inter-video Therapy	6
Common Factors	7
Common versus Specific Factors	8
Thesis Flow and Delineation of Reviewed Literature	10
Client Factors	13
Session Factors	18
Eye-contact	25
A Brief Thesis Outline	27
Study 1: An Exploration of the Perception of Inter-video Therapy	28
1.01 Method	29
Participants	29
Material	30
Procedure	34
1.02 Results	34
The Open-Ended Questions	34
Inter-video therapy preferences	38
Inter-video therapist preferences	40
Anticipated outcome	43
Inter-video therapy expectations	45
1.03 Discussion	47
Study 2: The Effect of Facial Similarity on Inter-video Therapist Choice and Expectations	51
2.01 Method	53
Participants	53
Material	53
Procedure	56
2.02 Results	57
Similarity effect	57
Questions for the Therapists	60
Modality Openness	61
2.03 Discussion	61
Study 3: The Effect of Therapist Eye-contact on the Therapeutic Relationship	66
3.01 Method	70
Participants	70
Material	71
Procedure	76
3.02 Results	77
Eye-contact and the Therapeutic Relationship	78
Alliance Agreement	81
Inter-video Therapy Motivation	82

Open-ended Questions	83	
3.03 Discussion		83
 Study 4: Evaluating Connections between Therapy Expectations, Eye-contact, Session Experience and Therapy outcome		 89
4.01 Method		92
Participants	92	
Material	92	
Procedure	97	
4.02 Results		98
Eye-contact and Session Experience	99	
Alliance Agreement	101	
Inter-video Therapy Motivation	102	
Therapy Outcome Measures	103	
Expectations, Session Experience and Outcome	105	
4.03 Discussion		108
 General Discussion and Conclusions		 115
Expectations	115	
Eye-contact and the Therapeutic Relationship	119	
Limitations	125	
Novel Contributions	128	

Abstract

Background. This thesis reports the findings of four studies that examined the effect of different variables (e.g., video-link use, shame, therapist eye-contact) on expectations and the therapeutic relationship in the context of Inter-video therapy. Results are discussed with respect to promotion of Inter-video therapy, improvement of clients' Inter-video therapy experience, and recommendations regarding therapist style of eye-contact.

Method. One survey study and three experimental studies were performed. Study 1 ($N = 197$), a survey study, examined Inter-video therapy preferences and expectations. Study 2 ($N = 36$) evaluated the effect of therapist-participant physical similarity on Inter-video therapist expectations. Study 3 ($N = 19$) manipulated therapist eye-contact to evaluate the effect of eye-contact on the therapeutic relationship. Study 4 ($N = 49$) examined both the effect of eye-contact on the therapeutic relationship and the influence of expectations on this relationship and on outcome. Study 4 also evaluated the association between session measures (empathy, alliance, session evaluation) and outcome.

Results and implications. There was a clear discrepancy between participants' perception of Inter-video therapy (hesitant) and their experience of it (positive), indicating more positive information about this e-therapy modality may be important to enhance expectations and hence use. Therapist rather than therapy expectations had an effect on Inter-video therapy experiences and outcome. As reported in the studies, more visual, factual and personal information about the therapist may increase Inter-video therapist expectations. Therapist-participant physical similarity did not appear to have a positive influence on expectations; indeed it had a negative influence for males with prior therapy experience. Consistent with prior research, participants rated their Inter-video therapy experiences positively, reflected in high rating of working alliance and empathy across the eye-contact conditions. There was no clear positive effect of more direct eye-contact. Instead, there was an interaction effect between eye-contact and shame, indicating the downcast

eye-contact associated with video-link communication might assist initial engagement with clients who struggle with shame. Unexpectedly, there was a significant difference in the relationship between the session measures and one of the outcome measures as a function of eye-contact. The difference indicated eye-contact might moderate the relationship between alliance and outcome and this might be important for future research to consider.

Conclusions. Participants in this research experienced Inter-video therapy very positively, and results indicated the eye-contact distortion associated with Inter-video therapy should not be a cause for concern regarding the therapeutic relationship. Indeed the downcast eye-contact might facilitate therapy engagement for some clients and could be one reason why some clients perceive Inter-video therapy as more comfortable than in-person therapy. However, the research also indicated participants' perceptions and expectations toward Inter-video therapy were tentative, especially as compared to perceptions and expectations toward in-person therapy. This latter finding will be important to address to further develop the use and outreach of Inter-video therapy.

Introduction

This thesis examined expectations and the therapeutic relationship in therapy delivered through a video-link. The core purpose was to study the effect of different variables (e.g., video-link use, shame, therapist eye-contact) on these two common therapeutic factors. An additional objective was to examine the relationship between expectations, the therapeutic relationship, and therapeutic outcome. Furthermore, the results lead to practical recommendations, for example, with respect to the promotion of Inter-video therapy and guidelines regarding eye-contact.

The introduction has been structured in the following way: First, terms used in the field of Internet-based therapeutic interventions are defined and discussed to clarify the terminology employed in the thesis. Second, the effect of Internet-based therapeutic interventions is briefly outlined, followed by considerations of the role of therapeutic process variables when thereapy is delivered through a video-link. After having provided this broader framework around Inter-video therapy, common therapeutic factors are briefly discussed alongside a rationale for why the therapeutic relationship and expectations were selected as the central outcome measures in the thesis. In addition, specific versus common factors were considered to provide a foundation for the relevance of the research questions examined in this thesis, and to what degree they may generalise across interventions and clinical presentations. The final part of the introduction includes an outline of the thesis structure and a literature review of the variables investigated in the empirical studies.

Terminology and Definitions

The field of Internet-based therapeutic interventions suffers from a lack of consistency and clarity in definition, reflected in numerous rival and interchangeable terms (Barak, Klein, & Proudfoot, 2009). Several terms commonly used include web-based therapy, e-therapy, cybertherapy, eHealth, e-Interventions, computer-mediated interventions and online therapy (Barak et al., 2009). To provide more clarity, Barak et al. (2009) proposed to differentiate the

many different Internet-based interventions into: 1) web-based Internet interventions, which are primarily self-guided such as computer programs; 2) online counselling which involve more substantial counsellor contact through email, chat or a video-link; 3) Internet operated therapeutic software such as 3D virtual environments and; 4) other online activities such as blogs, podcast and online support groups. However, the terminology proposed by Barak et al. (2009) is not consistently integrated in the field. For example, in a recent review, Socala et al. (2012) employed the term e-therapy with reference to Manhal-Baugus' (2001) definition: "a licensed mental health care professional providing mental health services via e-mail, video conferencing, virtual reality technology, chat technology, or any combination of these" (p. e110). Also, Cavanagh and Millings used the term "E-mental health" as a general term for interventions delivered via the Internet. Furthermore, although "Online psychology" is frequently used to refer to text-based therapy (e.g., King, Bambling, Reid, & Thomas, 2006; Mallen, Day, & Green, 2003; Murphy, Parnass, Mitchell, Hallet, Cayley, & Seagram, 2009), the term is also used more broadly as a reference to interventions delivered via the Internet (e.g., Richards & Vigano, 2013). Additional general terms often include the word "tele", and Perle, Langsam and Nierenberg (2011) wrote that "within the online world, tele-health sits at the top of the hierarchy, encompassing all other terms" (p. 2149). Likewise, Gamble, Boyle, and Morris (2015) used the term tele-psychology with reference to "using internet-based communication technology to provide psychological services" (p. 292). Other examples include Ax et al. (2007), Jerome and Zaylor (2000) and Ress and Haythornthwaite (2004) who used tele-psychology or tele-health to refer to technology-assisted means to provide psychological services.

Given this inconsistency, it is important that any work in this field clearly define the terms employed and, in this thesis, the term e-therapy is used with reference to therapeutic interventions delivered through the Internet. This term have been chosen for a very pragmatic reason. It is less

cumbersome than many of the other terms (e.g., tele-mental health or Internet-based psychological interventions) and for this reason may provide a better “flow” for the reader.

The terminology for specific delivery modalities such as email or a video-link also suffers from a lack of clarity. As indicated above, Barak et al. (2009) suggested online counseling as a general term for modalities such as email, chat, and video-link. However, such grouping may be problematic, as communication via a video-link to some degree is entirely different to any text-based interventions (see for example Jerome & Zaylor, 2000). Terms used with reference to interventions delivered via a video-link are “Videoconferencing”, Internet-based videoconferencing”, “Telehealth”, “Telemental health”, “Remote counselling” or “telepsychotherapy” (Backhaus et al, 2012). Some of these terms lack specificity; for example, as discussed above, “tele” is also used to refer more broadly to interventions delivered via the Internet. Furthermore, the term “videoconferencing” was developed within computer science and the technology was designed to serve a conference or multiple locations rather than individuals (e.g., Nguyen & Canny, 2007). Although videoconference is the most used term in the literature (Backhaus et al., 2012) the term conference does not well describe the interaction between a therapist and a client. Even if used in group therapy, one person, or one group of people, is offering emotionally sensitive information while another is not. In consideration of these issues with the terminology, this thesis introduces the term “Inter-video therapy”.

Suggesting yet another term may not be a productive solution. However, to some extent this term shortens and integrates other core terms used in the literature (*Internet*, *videoconference*, *telepsychotherapy*). Furthermore, although “Inter” (with a capitalised “I”) in the context of Inter-video contain a reference to the Internet the Latin origin of “inter” is “between”, “reciprocally”, “mutually” and “together” (www.dictionary.com). As such it is the hope that the term “Inter-video therapy” provides a more adequate reflection of the nature of the interaction involved in this specific form of e-therapy. Specifically, the term Inter-video therapy refers to: interactive

telecommunication where technology allows a therapist or counsellor at one location to provide psychotherapy or counselling synchronously through video and audio transmission with a client or patient situated at another location. In the rest of the thesis this term is used consistently. This means that when other literature is reviewed, where other terms are employed, the terminology is changed to fit with the definition and terms used in this thesis. This is done not to undermine or critique other researchers' work, but to make arguments in this thesis clear and ensure a consistency in the terminology in order to facilitate the reading of the thesis.

A final term needs to be defined. Because e-therapy involves "remote interventions modalities", there has been a need to refer to "standard", "traditional" or "normal" therapeutic interventions. Not surprisingly, different terms have been established such as those just mentioned (e.g., traditional) along side terms such as "face-to-face treatment", "office-based", "on-site counselling", and "in-person therapy" (Backhaus et al., 2012). Throughout this thesis, the term "in-person therapy" is employed and refers to therapy or counselling that takes place between a therapist or counsellor who are physically located in the same room as the client.

E-therapy Outcome

Alongside technological development and increased availability of computers and the Internet (for relevant data see <http://www.pewinternet.org/fact-sheets/teens-fact-sheet/>), e-therapy has become more widespread over the last two decades (e.g., Perle, Langsam, & Nierenberg, 2011). An advantage of e-therapy is the potential to deliver treatment to clients or patients who don't have access to such treatment in their local environment, or who prefer the privacy and convenience associated with e-therapy (e.g., Griffiths, Lindenmeyer, Powell, Lowe, & Thorogood, 2006; Ritterband & Tate, 2009). Not surprisingly, the most researched e-therapy questions concern efficacy and whether e-therapy outcomes are comparable to those of in-person therapy (e.g., Kiropoulos et al, 2008; Mitchell et al., 2008; O'Reilly et al., 2007; Paxton, McLean, Gollings, Faulkner, & Wertheim, 2007). The majority of reviews conclude that e-therapy is

promising, and studies demonstrate efficacy across a variety of therapeutic approaches, problem areas, and e-therapy modalities (Amstadter et al., 2009; Andersson, 2009; Barak et al., 2008; Carlbring & Andersson, 2006; Cuijpers, Van Straten, & Andersson, 2008; Richardson, Frueh, Grubaugh, Egede, & Elhai, 2009; Richardson, Stallard, Velleman, 2010; Ritterband & Tate, 2009; Spek et al., 2007). Nevertheless e-therapy involves a physical distance between the provider and the client, which may change central aspects of the therapeutic process (e.g., Caravan & Millings, 2013; Suler, 2010). This is discussed in more detail below with respect to Inter-video therapy.

Inter-video Therapy

As previously indicated, there are many different e-therapy modalities (Barak et al., 2009). The modalities include video-link, smart-phone and table software applications, email, chat, forums and web-programmes which all involve a different style of communication (e.g., synchronous or asynchronous, talking or writing) and a different degree of therapist involvement (e.g., some web-programmes are purely self-help based) (Barak et al., 2009). Thus, when considering e-therapeutic processes, it is important to differentiate between these many different modalities. For example, the therapeutic processes associated with a video-link are likely to be different to other modalities such as email or web-programs because the route of communication and style of therapist contact are qualitative different (e.g., Castelnovo, Gaggioli, Mantovani, & Giuseppe, 2003; Jerome & Zaylor, 2000). Thus, to focus this thesis, the central research questions are limited to Inter-video therapy. This modality is unique among the various modalities because it resembles in-person therapy in many ways. For example, talking is the main route of communication, it is synchronous in time and has the same amount of one-to-one time spent with a therapist. Nevertheless, just as the other e-therapy modalities, Inter-video therapy is characterised by a physical distance between the client and the therapist, and communicating through a video-link will inevitably decrease the availability of some non-verbal cues and change the non-verbal therapeutic interaction (Jerome & Zaylor, 2000; Lozano, Birks, Kloeze-man, Cha,

Morland, & Tuerk, 2015; Rees & Haythornthwaite, 2004). Consequently, an early criticism of Inter-video therapy has revolved around the distance and how the decreased non-verbal communication would influence therapeutic processes such as the relationship between the therapist and client (e.g., Rees & Stone, 2005). Although a number of Inter-video therapy studies have evaluated client satisfaction, fewer have included a measure of the therapeutic relationship (for an overview see Lozano et al., 2015), and recent reviews indicate a need to both measure the relationship as well as other variables and evaluate how different client, therapist and therapy factors moderate the relationship experience (e.g., Backhaus et al., 2012; Cavanagh & Millings, 2013; Simpson, 2009).

Common Factors

The effect of therapy is usually ascribed to both common and specific factors (e.g., Norcross & Lambert, 2011). Specific factors refer to the specific components and methods of different psychotherapy traditions or schools (e.g., dynamic versus cognitive therapy). In contrast, common factors refer to variables that influence therapeutic processes and outcome across different therapeutic traditions (e.g., Norcross & Lambert, 2011). Many such factors have been identified during the last decades; for example, in a review from 1990 Grencavage and Norcross identified 89 different common factors (Grencavage & Norcross, 1990). Most common factor models reduce the factors to a handful and provide a theory of the different factors' role, and importance and the interactions between the different factors (e.g., Laska, Gurman, & Wampold, 2014; Laska & Wampold, 2014; Norcross & Lambert, 2011). One way to categorise the different common factors is so group them under: therapist factors and/or the therapeutic relationship such as alliance, empathy, regard, congruence and collaboration (e.g., Norcross, 2011); client factors such as resistance, participation, preferences, role and outcome expectations (e.g., Bohart & Tallman, 2010; Constantino, Glass, Arnkoff, Ametrano, & Smith, 2011; Defife & Hilsenroth, 2011; Swift, Callahan, & Vollmer); and change processes such as providing a culturally

embedded rationale for psychological distress and client accepted procedures or rituals to evoke change (e.g., Laska, Gurman, & Wampold, 2014; Wampold, 2011). The most studied common factor, which also appears to be consistently included throughout different common factor models, is the therapeutic relationship (Norcross, 2010). This central common factor has consistently been related to outcome (Norcross & Lambert, 2011) and that is one reason this factor has been selected as a main outcome variable in this thesis (for further details and discussions see below under “Session Factors”). Expectations have not been studied as rigorously as the therapeutic relationship, but in-person therapy research does suggest that expectations have a substantial effect on both clients’ therapy experience and therapy outcome (for a review and discussion of the literature see Constantino et al., 2011). In addition, classic social psychological findings show expectations to influence peoples’ motivations and actions (e.g., Asch, 1946; Kelly, 1950). Furthermore, research has shown expectations toward e-therapy are different (less positive) as compared to in-person therapy (e.g., Carper, McHugh, & Barlow, 2013; Gun, Titov, & Andrews, 2011; Musiat, Goldstone, & Tarrier, 2014; Rochlen, Beretvas, & Zack, 2004; Travers & Benton, 2014). For these reasons, expectations were included as the other main common factor to be examined in the thesis (for further detail and discussion see below under “Client Factors”).

Common Versus Specific Factors

The relative importance of specific versus common factors has been vigorously debated for over six decades, with the core dispute being the accuracy of Rosenzweig’s (1936) “Dodo Bird Verdict”—the proposal that therapeutic change is a result of common rather than specific factors and therefore all therapeutic traditions are equally effective (Beutler, 2002; Duncan, 2010; Hubble, Duncan, Miller, & Wampold, 2010). This is a controversial issue. In support of the Dodo Bird Verdict, Luborsky et al. (2002) summarised 17 meta-analyses comparing active treatments (e.g., dynamic treatment vs. behavioural) and found only a small mean uncorrected absolute effect size of treatment type (Cohen’s $d = 0.2$). Likewise, Horvath, Re, Fluckiger and Symonds (2011)

performed a meta-analysis on data from 201 research reports on the effect of the therapeutic alliance on outcome (for a definition of alliance see below under “Common Factors”). They found alliance had a moderate effect on outcome ($r = .275$) and that between treatments and outcome measures (e.g., Beck Depression Inventory vs. Symptom Checklist 90), there was no statistically significant difference in the relationship between alliance and outcome. This research indicates that, regardless of treatment (e.g., cognitive behavioural therapy vs. existential), the therapeutic relationship has a similar effect on treatment outcome.

In critique of the Dodo Bird verdict, a qualitative literature review by Chambless and Ollendick (2001) found differences in how anxiety-disordered and depressed patients responded to different treatments. Patients with major-depression responded similarly to many different therapies. In contrast, for patients with anxiety disorders (obsessive-compulsive disorder and generalised anxiety disorder) cognitive behavioural therapy was more effective than other types of interventions (e.g., relaxation and relationship focused therapy). Furthermore, Beutler (2002) and Chambless (2002) argued that research and clinical experience provide evidence for the central role of specific factors. For example, Beutler (2002) referred to marked treatment improvement as a result of *in vivo* exposure and response prevention for obsessive-compulsive patients. Beutler (2002) and Chambless (2002) further argued that important details are lost in meta-reviews, because different treatments are categorised under just one label and patients with different presentations are combined into one group. They specifically critiqued the fact that Luborsky et al. (2002) combined patients with depression, obsessive-compulsive disorder, phobias, other anxiety disorders, and “mixed neurotics”.

In sum, there are data and arguments to both agree and disagree with the Dodo Bird-verdict. The emphasis on common factors in this thesis does not reflect agreement with the Dodo Bird verdict. For example, whether working in-person or through a video-link, exposure interventions are likely central to successful treatment for most client’s with anxiety, and without

this element, even a strong therapeutic relationship is not likely to create change (Chambless & Ollendick, 2001). However, an improved understanding of how to strengthen the therapeutic relationship when working with anxious clients through a video-link may still improve therapy adherence, willingness to engage in exposure, and as a result increase therapy outcome. As such, the focus on common factors does rely on the foundation that these factors influence therapeutic process and outcome across any treatment or problem area and whether treatment is delivered through the Internet or in-person. For this reason, it is important to study client and therapist variables that may influence common e-therapeutic factors and to understand how these factors interact. This is relevant to the further development of e-therapy, and the aim of this thesis is to study such variables in the context of Inter-video therapy.

Thesis Flow and Delineation of Reviewed Literature

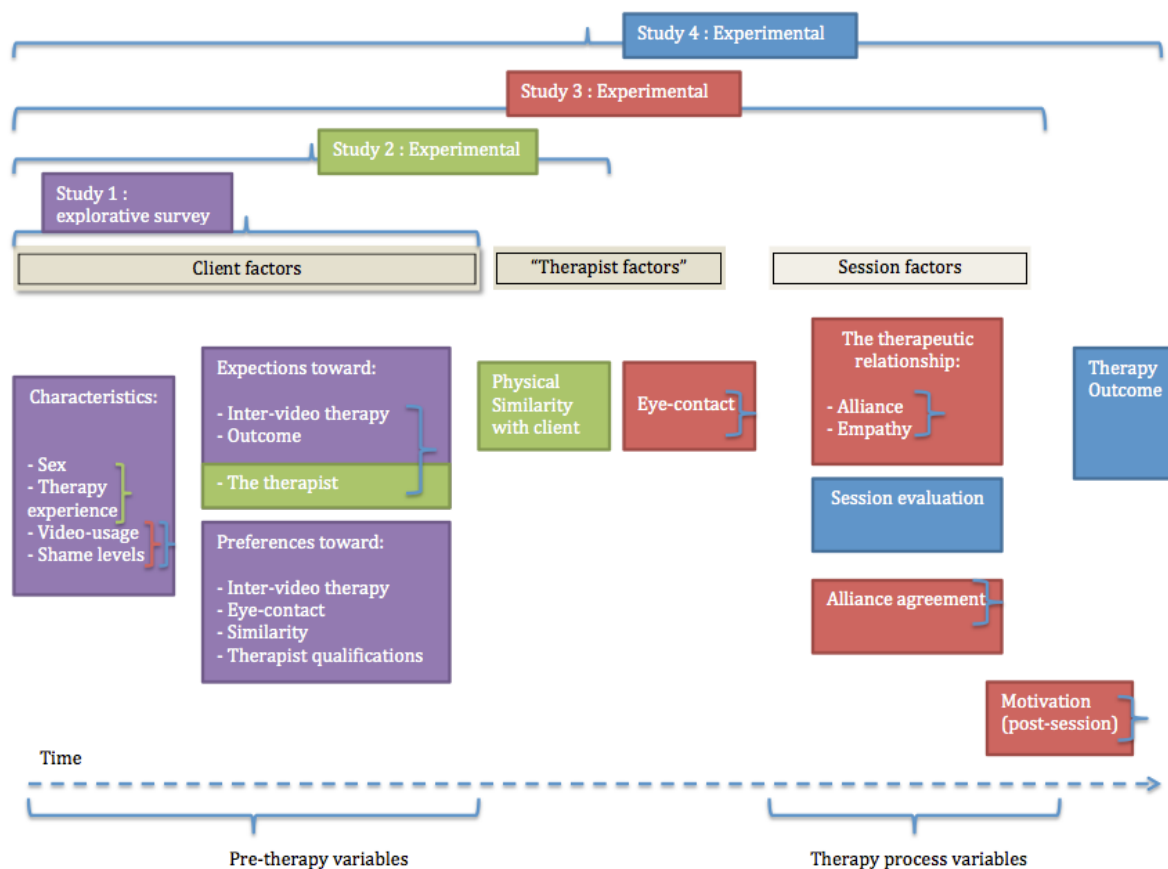
The thesis evaluated a number of different Inter-video therapeutic variables. To structure the presentation of these variables, they have been differentiated into “client factors” such as attitudes and expectations, and “session factors” such as the therapeutic relationship and session evaluation. With respect to the process of therapy, client factors can be identified before therapy begins; in contrast, session factors can only be studied after therapy has begun. The thesis also included what could be considered “therapist factors”. These were used to create the experimental conditions in Study 2 (similarity) and Studies 3 and 4 (eye-contact).

The flowchart presented in figure 0.1 illustrates the variables included in this thesis, how they are related in time with respect to the process of therapy, and in which of the four studies they have been included. The variables studied (e.g., video-link use, expectations, alliance) are placed in the chart according to when in time the variable can be assessed with respect to the process of therapy. Each study has its own unique colour code. The variables studied in each study have this same colour. However, some variables are included in all studies and have therefore both a main colour, reflecting the study in which the variable(s) was first included, and

additional colour indicators to show which other studies the variable was included in. The chart does not include the specific connections and moderators reflecting the hypotheses evaluated in each study. However, in the introduction section for each of the four studies, a more specific outline of the hypothesis has been included.

Figure 0.1

Flowchart of connection between and progression through the four studies.



The rest of this section consists of a presentation of the research underpinning the potential role or importance of the variables included in this thesis. Not all studies included have specifically focused on Inter-video therapy. Indeed the presentation consists of studies and reviews from in-person therapy, e-therapy, Inter-video therapy, and computer science. This decision is based on the assumption that some of the factors identified as important for in-person

therapy will also be relevant to Inter-video therapy. Furthermore, although Inter-video therapy is different from other e-therapy modalities, it is still a remote therapy nested under the e-therapy umbrella. To understand potential challenges with Inter-video therapy, it can therefore be relevant to consider some of the general findings, advantages and disadvantages with e-therapy. Also, studies from computer science can provide valuable insight into the effect of technology on communication and have therefore been included when considered relevant. Nevertheless, where possible, the main focus has been on Inter-video therapy studies.

It is noteworthy that there are a number of other relevant client factors (e.g., age and clinical presentation), session factors (e.g., presence, type of intervention), and therapist factors (e.g., e-therapy attitude, allegiance) that were not included in this research (for the potential importance of such other factors see for example Backhaus et al, 2012, Caravan & Millings, 2013; Germain, Marchand, Bouchard, Guay, & Drouin, 2010; Perle et al., 2012; Wampold, 2010). Thus, the review below is not an exhausted overview of all factors relevant to Inter-video therapy. Several decisions have been made regarding which factors to include, and the decisions have largely been pragmatic. For example, age was originally a factor considered relevant, but because participants were recruited from a student sample, most were in their early twenties, and thorough exploration of the effects of age was not possible. For this reason literature on why age may be important to Inter-video therapy processes has not been discussed further. Likewise, because all participants were students rather than being from a clinical population, it was not possible to study the role of different clinical presentations on alliance development. One reason for including students in the research was ethical concerns about including actual clients in an experimental therapy design (e.g., some participants would receive a considerable degree of eye-contact which could be anxiety provoking). Finally, the resources available did not allow for specific training of therapists or a more large-scale study involving a number of different therapists. For this reason it was not possible to study factors such as the role of the therapeutic

intervention (e.g., meta-cognitive vs. behavioural intervention) or the role of the therapist's e-therapy attitude or allegiance. Of course, the factors included in this thesis have been identified in prior research as important to evaluate. Of final note, rather than providing detailed critique of the methodology or analysis of the studies considered below, the review is concerned with their findings and what hypotheses can be drawn from them.

Client Factors

Only recently has the importance of the client been emphasised as an important common factor, that, in itself, has an effect on therapy outcome (Bohart & Tallman, 2010). Bohart and Tallman (2010) argued that it is the client that makes therapy work; clients are active rather than passive recipients of help, and their ability to make use of therapy may account for up to 30% of therapeutic change. A number of client variables are thought to influence the ability to benefit from therapy, and some of these include clients' expectations and preferences (Greenberg, Constantino, & Bruce, 2006; Swift, Callahan, & Vollmner, 2011), personality (Green, Hadjistavropoulos, & Sharpe, 2008; Luborsky, Crits-Christoph, Mintz, & Auerbach, 1988) and characteristics such as gender and prior therapy experience (e.g., Ang, Lim, Tan, & Yau, 2004; Delsignore, 2008). Different e-therapy studies and reviews have emphasized the need to better understand such client variables because they are likely to interact and influence who will seek out and benefit from e-therapy (e.g., Backhaus et al, 2012; Caravan & Millings, 2013; Rochlen et al., 2004; Simpson, 2009). It is noteworthy that expectations and preferences can be considered as common factors. In contrast the other client factors considered (shame, gender, prior therapy experience and video-link use) are variables that were hypothesised to affect expectations and the therapeutic relationship respectively.

Expectations and preferences. In-person therapy research suggests expectations may account for up to 15% of therapy outcome variance, with more positive therapy expectations leading to better outcomes (Greenberg et al., 2006). Furthermore, research indicates that when

clients' therapy preferences are matched, they are less likely to drop out of therapy prematurely and are more likely to show improvements while in therapy (Swift, Callahan, & Vollmer, 2011). Thus, it is important to consider potential clients' preferences for therapy modality (e.g., in-person vs. Inter-video or Inter-video vs. e-mail). It is noteworthy that Rochlen et al. (2004a) developed a scale to study potential help seekers attitude or expectations toward e-therapy and found that the participants ($N = 235$ in the first trial) in general had a positive bias toward in-person therapy. In another study, by Travers and Benton (2014), 334 college students were surveyed to assess their acceptability of e-therapy, and results indicated participants had a clear preference for in-person therapy as compared to e-therapy. Similarly, Musiat et al. (2014) recruited a large community sample ($N = 490$) and found a strong preference for in-person therapy, and concluded that participants generally had a negative perception of e-therapy and did not expect they would want to make use of e-therapy in the future. An additional survey ($N = 1104$) also showed a preference for in-person treatment as compared to e-therapy (Gun et al., 2011). These studies suggest there may be a negative attitude toward e-therapy, especially in samples unfamiliar with this type of therapy delivery. It is noteworthy, however, that Traver and Menton (2014) found their participants preferred Inter-video therapy to other e-therapy modalities. Considering this latter finding, it is possible that people do not show a strong preference for in-person therapy as compared to Inter-video therapy. This possibility is evaluated in Study 1 alongside an exploration of more specific Inter-video therapist preferences. For example, research indicates information about therapist qualifications is important to clients (Greenberg et al., 2006), and consequently people may show a preference for an Inter-video therapist with more e-therapy experience and training.

Rochlen et al. (2004) encouraged further investigation of the relationship between expectations, attitudes, and preferences in e-therapy. They suggested expectations could have practical implications due to a direct or indirect influence on the therapeutic relationship.

However, limited research has investigated the effect of e-therapy expectations on therapy processes and outcome. One exception is a study by Germain et al. (2010) who investigated a number of therapy process variables over the course of weekly cognitive behavioural Inter-video therapy sessions for clients with posttraumatic stress disorder ($N = 46$). Trained CBT therapists with at least five years experience provided therapy over 16-25 weeks, depending on therapy requirements. A measure of the participant's perception of conducting therapy via a video-link was included to analyse whether this "expectation" measure had an influence on the working alliance (for more information on this study and alliance see below). No statistically significant effect was found. This finding is surprising given the role expectations are considered to have on in-person therapy, and indicates that further research into the role of Inter-video therapy expectations is relevant. In this thesis, expectations toward the Inter-video therapy experience have been included in Studies 1 and 4. Furthermore, specific therapist expectations were included in Studies 1, 2 and 4. Study 4 analysed the effect of these two types of expectations on both session experiences as well as therapy outcome. Furthermore, in this thesis, positive Inter-video therapy expectations have been considered as indicative of who would be more likely and motivated to commence Inter-video therapy. To evaluate if specific client characteristics were associated with more positive expectations, Study 1 investigated a number of variables (client gender, prior therapy experience, video-link usage), which were hypothesised to have an influence on Inter-video therapy expectations (for more detail on these variable and the hypothesis see below). Furthermore, Study 2 investigated whether increased similarity in facial features between an Inter-video therapist and a potential client would increase the likelihood of the client choosing to work with the therapist and result in more positive therapist expectations. The motivation behind this study was research indicating that similarity generally increases liking and trust (Burger, Messian, Patel, Del Prado, & Anderson, 2004; De Bruine, 2002; Furnham & Swami, 2008; Jiang, Hoegg, Dahl, & Chattopadhyay, 2010).

Shame. It has been hypothesised that the distance and increased degree of anonymity associated with e-therapy could be beneficial to certain client groups. For example, it has been proposed that e-therapy may be advantageous for: certain introverted people (Hambyrger & Ben-Artzi, 2000); males high on restrictive emotionality (Rochlen, Land, & Wong, 2004); self-conscious people (Simpson, 2009); or people high on shame (Cohen & Kerr, 1999). Likewise it has been suggested that clients who perceive their issues as especially embarrassing or shameful (e.g., clients with eating disorders) might be more motivated to work online (Simpson, Bell, Knox, & Mitchell, 2005; Stofle, 2001). For this reason, the Internalised Shame Scale (ISS, Cook, 1994) was included in Study 1 (see method section in this Study for more detail) to evaluate whether proneness to shame had a positive effect on Inter-video therapy preferences and expectations. Further, the effect of shame on the Inter-video therapy experience was addressed in Studies 3 and 4 with both of these studies evaluating client factors that could affect and moderate alliance, empathy and session evaluation (for more detail see “session factors”).

Gender. Few studies have considered differences between males and females in their perception and use of Inter-video therapy (Backhaus et al., 2012). However, it has been hypothesised that e-therapy as compared to in-person therapy may be more acceptable to male clients (Rochlen, et al., 2004b). The studies that have considered client gender have found contrasting effects. Rochlen et al. (2004a) found no statistically significant differences between males and females regarding perceived value and discomfort with e-therapy. Noteworthy, they did find females attributed greater value to in-person therapy as compared to males. Young (2005), found that a typical “e-therapy client” was a white (Caucasian) well-educated male. In contrast, Leibert, Archer, Munson, and York (2006) found a typical e-therapy client was a female with regular Internet use. Both studies focused on text-based e-therapy, but Young evaluated e-therapy delivered via a specific chat room for online addictions while Leibert et al. evaluated a number of different text-based e-therapy sites and for a variety of problems (anxiety, depression,

relationships). Thus, these divergent findings suggest that male and female perception and experience of e-therapy may vary according to the problem and modality involved. In a recent study, Fridrici and Lohaus (2009) examined compliance with a stress prevention program for teenagers ($N = 166$) delivered over an 8-week period either in-person or through a school or home-based e-therapy program. The researchers found that female participants showed more acceptance of the intervention when delivered in-person or through the school. In contrast, male participants showed more acceptance of the intervention when delivered as a home-based program (Fridrici & Lohaus, 2009). Considering this study, it is possible that females have a preference for e-therapy modalities, which involve more therapist contact and more social interaction. Because Inter-video therapy involves a high degree of therapist contact (similar to in-person), it may be hypothesised that females have a more positive perception of Inter-video therapy and therapists. This is evaluated in Studies 1-2.

Therapy experience. It is possible that prior therapy experience influences therapy expectations and how easy it is to engage in future therapy (Furnham & Wardley, 1990). This hypothesis was supported by Travers and Benton (2014), who found a difference between participants with and without a prior history of counselling or therapy; participants with prior therapy experience were more positive toward e-therapy than participants without. Considering this finding, it was hypothesised that prior therapy experience would have a positive influence on Inter-video therapy expectations. This was evaluated in Studies 1 and 2.

Video-link usage. Prior research suggests that technology comfort and use might influence Inter-video therapy (Richardson et al., 2009). For example, in a review study on the topic of drop-out from e-therapy interventions, Dunn et al. (2012) suggested limited technology experience could be a reason clients drop out of e-therapy. Furthermore, Carey, Wade, and Wolfe (2008) studied the importance of prior technology use to treatment response. They evaluated combined Inter-video and web-site intervention in families with paediatric traumatic brain injury.

A total of 40 families ($N=150$) were included, and each family was provided with 16 web-site sessions followed by a subsequent Inter-video session with the therapist. Results suggested that there was no statistically significant effect of prior technology use on the alliance (for more detail about this study and the alliance measure see below). However, the parents without prior use missed significantly more sessions than did those with prior technology use, and they were less likely to benefit from the intervention, showing higher levels of depression and anxiety at follow-up. To further understand the effect of prior technology experience on Inter-video therapy, Studies 1, 3 and 4 included a measure of prior video-link usage. It was hypothesised that more experience with a video-link would be associated with more positive expectations toward Inter-video therapy and a more positive Inter-video therapy experience (for more detail see below). Video-link usage was not included in Study 2 because this variable was not considered to interact with how physical similarity between a therapist and a client would influence relationship expectations.

Session Factors

Client session experience is central to therapy adherence and progression and one of the most important aspects of this experience is the therapeutic relationship between the therapist and the client (Norcross, 2010). The therapeutic relationship can be defined as the feelings and attitudes the therapist and client have toward one another and the manner in which these are expressed (Gelso & Carter, 1994). Research has estimated that relationship factors account for up to 12% of therapy outcome variance (Norcross & Lambert, 2011). There are many different components to the therapeutic relationship such as alliance, trust, warmth, empathy, positive regard and congruence (Norcross, 2010). This thesis focused on alliance and empathy, as these two components have been consistently associated with therapeutic outcome in the in-person therapy literature (Elliot, Bohart, Watson, & Greenberg, 2011; Horvath, Del Re, Fluckiger, & Symonds, 2011).

Alliance. The influence and role of alliance has been evaluated in a large number of in-person therapy studies since the 1960s and is usually understood as a reflection of the affective and collaborative bond in therapy (Horvath et al., 2011). Different alliance measures have been developed within different psychotherapeutic traditions (Cecero, Fenton, Frankforter, Charla, & Kathleen, 2001), but the inter-correlation between these measures is substantial (Horvath & Symonds, 1991). A meta-analysis indicated that alliance may account for approximately 7.5% of the variance in treatment outcome (Horvath et al., 2011). In this thesis, the Working Alliance Inventory was employed (WAI; Horvath, 1989). This inventory is based on Bordin's (1979) integrative model of alliance where the term is defined as involving mutual agreement on therapeutic goals, consensus on the necessary tasks to reach such goals and a trusting relationship bond.

Research indicates that the development of Inter-video therapy alliance is comparable to in-person therapy (for reviews see; Backhaus et al, 2012; Lozano et al., 2015; Simpson & Reid, 2014). Some central studies are considered below in more detail. Bouchard et al. (2000, 2004) studied alliance and therapeutic outcome of Inter-video and in-person therapy for clients suffering from panic disorder with agoraphobia. The participants ($N = 21$) received twelve sessions of cognitive behavioural therapy from trained therapists with a minimum of 1-year of experience with the treatment protocol. The WAI showed very high alliance ratings with subscales close to maximum levels. Importantly, participants were self-selected and all seemed at ease with technology (e.g., to the question "I am the kind of person who likes to use electronic gadgets" the average score was 4.12 on a 1-5 scale). Thus, the study illustrated that strong alliance can develop in Inter-video therapy, especially for clients who are motivated to use the video modality and who embrace the technology. In a later study (described above), Germain et al. (2010) studied the development of the alliance over the course of therapy and found high rating on the WAI and a progressive development in the alliance. It is noteworthy that alliance ratings did not significantly

decrease in high anxiety sessions (in vivo exposure) and there was no effect of a technology comfort scale on the therapeutic alliance during treatment. However, this scale did explain 15% of the variance in alliance rated post-treatment and thus the role of technology exposure on alliance is somewhat unclear and further research relevant. As outlined above, prior video-link use was included in Study 3 and 4 as a possible moderator of alliance.

Morgan et al. (2008) compared in-person and Inter-video treatment experiences for both psychological (general mental health and coping) and psychiatric (medical management) care of inmates ($N = 186$) in a US prison who suffered from mood disorders or disorders on the schizophrenic spectrum. A psychologist and a psychiatrist provided respectively the psychological and psychiatric treatment. Based on a single 20-30 minute session, the researchers found no statistically significant difference between the treatment modalities for alliance scores (WAI), post-session mood (Session Evaluation Questionnaire) and client satisfaction (Client Satisfaction Questionnaire). Likewise, Day and Scheider (2002) found high and comparable alliance scores for five cognitive behavioural therapy sessions delivered through in-person, audio-link only, and Inter-video formats to a community sample ($N = 80$) with a variety of problems, such as body-image issues, relationship and self-esteem. Experienced doctoral students who were provided with a specific session-by-session treatment plan provided the treatment, and alliance was assessed with the Vanderbilt Alliance Measure. Furthermore, Simpson, Guerrini, and Rochford (2015) explored alliance and satisfaction with in-person and Inter-video therapy in a university clinic and found equal alliance ratings on the Agnew Relationship Measure in the two treatment groups. Clients ($N = 23$) were treated for several different disorders such as social anxiety, depression, panic and alcohol abuse, and the intervention was tailored to the individual client and provided by provisional psychologists. Additional studies have shown high Inter-video alliance scores. For example, Simpson, Bell, Knox, and Michell (2005) studied bulimic disordered clients ($N = 6$) receiving cognitive behavioural therapy via a video-link from one

therapist. Alliance was assessed via qualitative interviews and the Agnew Relationship measure, and high alliance ratings were found. Carey, Wade, and Wolfe (2008) also found high score on the Agnew relationship measure in their study.

Some of the reviewed studies also indicated that Inter-video therapy alliance may develop in a different fashion than in in-person therapy. For example, Day and Scheider (2002) found Inter-video therapy may increase client initiative and spontaneity, and the authors speculated that the distance might make openness seem safer or encourage clients to take more responsibility. This would be consistent with the online disinhibition effect as described by Suler (2004). The effect refers to a specific “cyberspace phenomenon” that allows people to “loosen up, feel less restrained and express themselves more openly” (Suler, 2004, p. 321). This effect may also explain why some qualitative studies have found that Inter-video therapy clients preferred Inter-video therapy to in-person sessions (Simpson & Reid, 2014). For some of these clients, an advantage of the Inter-video therapy modality was an experience of feeling less ashamed or embarrassed (Simpson et al., 2005; Simpson et al., 2006). This finding supports the hypothesis that Inter-video therapy may be especially beneficial to people who struggle with shame or perceive their problem as shameful. As noted above, a measure of shame was included in Studies 1, 3 and 4.

In one study by Yuen et al. (2013), the effect of alliance on outcome was reported. Yuen et al. studied the feasibility of acceptance-based behavioural Inter-video therapy for social anxiety ($N = 24$). Treatment consisted of 12 weekly 1-hour sessions delivered by primarily doctoral students who were supervised and trained in the treatment protocol. In contrast to the dominant in-person therapy trend, there was no significant effect of the Working Alliance Inventory (assessed in session 2) on outcome (pre-treatment to follow-up residual gain scores in social anxiety symptoms). This may be consistent with authors of e-therapy reviews proposing that the therapeutic relationship have less influence on e-therapy outcome as compared to in-person

therapy (Caravans & Millings, 2013). Nevertheless, a number of e-therapy studies have found a positive effect of alliance on e-therapy outcome (for a review see Socala et al., 2012). The effect of alliance on outcome was analysed in Study 4 and it was hypothesised that alliance would have a positive effect on the outcome measures.

Empathy. Empathy is a core aspect of the therapeutic relationship, and analysis of 224 non-independent separate measures showed that empathy may account for 9% of therapy outcome variance (Bohart & Greenberg, 1997; Elliot, Bohart, Watson, & Greenberg, 2011). Research indicates that client-rated empathy is a better outcome predictor compared to observer or therapist rated empathy (Elliot et al., 2011). Thus, the present research only included client's ratings of empathy and employed the most endorsed client-rated measure of empathy, developed by Barrett-Lenard (1986) and founded on Rogers's understanding of empathy. Rogers (1957) defined empathy as the ability "to sense the client's private world as if it were your own, but without ever losing the 'as if' quality." (p. 99). Thus, although empathy is closely related to the emotional bond and connection between a therapist and a client, it revolves around the client perception of the therapist as able to feel the client's feeling, respond in a caring fashion and demonstrate an understanding of the client's frame of reference and way of experiencing the world (Elliot et al., 2011). Importantly, the client's experience of the therapist's ability to demonstrate an adequate understanding of relevant feelings, thoughts and struggles may be highly vulnerable to the physical distance and reduced non-verbal information associated with Inter-video therapy. This hypothesis is based on the assumption that as compared to alliance, conveying and receiving empathy may rely on more subtle non-verbal cues. For example, in-person research indicated that facial microbehaviour influences the emotional quality of the therapeutic relationship (Merten, 2005). Furthermore, research on videoconference communication suggests the distortion of eye-contact (see below) may influence the impression of the other person, specifically with respect to trust and empathy (Fullwood, 2007; Grayson & Monk, 2003; Mukawa, Oka, Arai, & Yuasa,

2005; Nguyen & Canny, 2007; 2009). Thus, although research indicates that alliance can be developed in Inter-video therapy, it may be that the modality compromises client experiences of therapist empathy. Furthermore, although a number of Inter-video therapy studies have evaluated alliance, no studies encountered by the author of this thesis have assessed empathy. For this reason, Study 3 and 4 addressed participants' experience of therapist-conveyed empathy in initial Inter-video therapy sessions. These studies also evaluated whether video-link use and therapist eye-contact (see below) had an effect on empathy. It is noteworthy that, although Carey et al. (2008) did not find a direct effect of prior technology exposure on alliance, they did report that prior technology might have an effect on whether the therapist came across as able to understand the client. Considering this, it was hypothesised that participants with a high video-link usage would be more accustomed to video-link communication and thus more readily able to receive conveyed empathy as compared to participants with a low video-link use.

Session evaluation. To measure clients' experience of the session beyond the relationship the Session Evaluation Questionnaire (SEQ, Stiles, 1980; Stiles et al., 1994) was included in Study 4. The questionnaire measures the session with respect to depth (perceived session value), smoothness (experienced degree of ease and comfort during the session), positivity (positive feelings post-session), and arousal (level of arousal post-session). The questionnaire has been used both as a measure of in-person therapy processes and outcome (e.g., Green et al., 2008; Kivlighan, Marmarosh, & Hilsenroth, 2014; Lingardi, Colli, Gentile, & Tanzilli, 2011). The effect of session evaluation on outcome is unclear and may depend on who rates the questionnaire. For example, Pesale, Hilsenroth, and Owen (2012) found a positive effect of client-rated session evaluation on outcome, whereas Stiles, Shapiro and Firth-Cozens (1994) found no such effect, but did find a relationship between observer-rated evaluation and outcome. The Session Evaluation Questionnaire has been used in at least two previous Inter-video therapy studies (Germain et al., 2010; Morgan et al., 2008). Germain et al. (2010) used it to study

therapist-client congruence and their results are discussed further below. Morgan et al. (2008) used it to evaluate differences in therapeutic process between Inter-video therapy and in-person therapy and, as mentioned above, found no significant differences with respect to the Session Evaluation Questionnaire. In this thesis, the measure was included to evaluate whether eye-contact (see below) had an effect on participants session experience beyond the relationship.

Alliance agreement. An important, but more complex measure of alliance involves the therapist alliance experience, which can then be used to evaluate alliance agreement between a therapist and a client. This agreement is interesting because some studies suggest concurrence between client and therapist perspective on alliance is associated with better outcome (Tryon, Blackwell, & Hammel, 2007). For example, Marmarosh and Kivlighan (2012) reported from two studies with respectively 36 and 82 therapy dyads using the working alliance inventory that more positive alliance agreement in the beginning of treatment was associated with greater symptom change. Noteworthy, research also shows that therapists often rate alliance slightly lower than the client, and that there is only a moderate correlation between therapists' and clients' alliance ratings (Tryon et al., 2007). This is consistent with research indicating that therapists often review sessions differently to clients and emphasise the relevance of getting client feedback (Bohart & Tallman, 2010). Inter-video alliance agreement is relevant to assess as the distance and decreased non-verbal interaction could further weaken the shared therapy experience as compared to in-person therapy. Furthermore, studies have found e-therapy providers are often less comfortable, relative to clients, employing new technologies (e.g., Mallen, Vogel, Rochlen, & Day, 2005). This is supported by Gun, Titov and Andrews' (2011) survey, which analysed differences in preference between lay people and health professionals indicating the latter group were less likely to prefer e-therapy as compared to in-person. Another study on clinical psychologist's acceptability of e-therapy ($N = 409$) found that only 24.1% believed e-therapy could be as effective as in-person therapy. It is possible such negative biases influence the providers' therapy delivery and alliance

experience. This negative bias may explain why Germain et al. (2010) found that clients on the Session Evaluation Questionnaire generally reported their Inter-video session as more meaningful than did the therapists. Furthermore, the researchers found significant correlations between the therapist and client subscales for the in-person condition. However, for the Inter-video condition, it was only significant for one subscale (which subscale was not reported in the study). It was therefore hypothesised that the Inter-video therapist's alliance ratings in Study 3 and 4 would be lower than the clients and that congruence would be lower than what is generally found for in-person treatment.

Eye-contact

Eye contact is a central and important non-verbal cue when people communicate, and Inter-video therapy is characterised by a distortion of eye-contact, which may influence how clients experience Inter-video therapy (Jerome & Zaylor, 2000). The distorted eye-gaze is caused by the discrepancy between the position of the camera (usually positioned at the top of the screen) and the position of the eyes of the people communicating (usually positioned at the middle of the screen) (Grayson & Monk, 2003). This means that when a therapist is looking directly at the eyes of the client on the screen, it will appear to the client as if the therapist is looking down. The distortion could influence Inter-video therapy in different ways. For example, research on using a video-link in a sales context suggests that no eye contact reduces information recall, and it has been hypothesised that more direct eye contact may increase attention and improve learning (Fullwood & Doherty-Sneddon, 2006). Thus, it is possible that having no direct eye-contact with a therapist makes it harder to process information and remember the material covered in the session. This in turn could influence therapeutic outcome. Furthermore, in a Western context, eye contact is usually associated with connection and intimacy (Kleinke, 1986, Ellsworth & Ross, 1975), whereas downcast eyes may communicate social deference, evasion, insincerity, or boredom (Nguyen & Canny, 2009); and Dowell and Berman (2013) found that more direct

therapist eye-contact was associated with enhanced perceived therapist empathy. For these reasons, no therapist eye-contact could have a negative influence on the session experience, and if so, more direct eye-contact may be a therapeutic non-verbal tool to increase therapy adherence, improve the therapeutic relationship and therapy outcome.

Consistent with these reflections, Lozono et al. (2015) advised therapist on how to increase the perception of eye-contact. Importantly, research also indicates eye-contact plays a different role in different contexts, and eye-contact can be perceived in a negative manner in some contexts (Ellsworth & Ross, 1975; Kleinke, 1986). This makes it relevant to consider whether increased eye-contact is necessarily productive to all clients in a therapy setting. For example, research on shame suggests that shame is associated with avoidance behaviour (Nathanson, 1992) and thus people high on shame may feel more comfortable with a therapist who does not engage in much eye contact.

Furthermore, prior video-link use and therapy experience might influence how participants perceive therapist eye-contact. For example, participants with a high level of prior video-link use might be accustomed to the eye-contact distortion, and thus have developed an ability to perceive the Inter-video therapist's downcast eyes as being "looked at" (Grayson & Monk, 2003). For this reason the eye-contact distortion may not influence them in the same way as participants with a low level of prior video-link use.

In summary, an important Inter-video therapeutic research question concerns how the eye-contact distortion influences therapeutic processes and outcome. To address this question, Study 1 evaluated participants' preference for therapist eye contact and evaluated whether shame influenced this preference. Further, Studies 3 and 4 included different experimental eye-contact conditions and evaluated the effect of eye-contact on session experience (alliance, empathy and session evaluation) and alliance agreement (Studies 3 and 4) as well as outcome (Study 4). The

studies also investigated whether the effect of eye-contact was moderated by variables such as shame, video-link use, and prior therapy experience.

A Brief Thesis Outline

In summary, the main focus of the thesis was on different Inter-video therapy expectations (outcome, modality experience and the therapist) and the therapeutic relationship (alliance and empathy). The research examined how these common factors were perceived and to what extent they were influenced by gender, therapy experience, video-link use, shame levels, therapist-participant similarity, and therapist eye-contact. Study 1 (An Exploration of the Perception of Inter-video therapy) and Study 2 (The effect of Facial Similarity on Inter-video Therapist Choice and Expectations) predominantly focused on participant preferences and expectations, whereas Study 3 (The effect of Therapist Eye-contact on Session Experience) and Study 4 (Considerations of Eye-contact, Session Experience, Expectations, and Therapy Outcome) focused on the therapeutic experience. The studies employed a quantitative methodology with the purpose of evaluating different hypotheses through analyses of significant relationships between the relevant variables. Study 1 may be considered an exploratory survey study whereas the nature of Studies 2-4 was both explorative and experimental.

Study 1: An Exploration of the Perception of Inter-video Therapy

This study considered how a student population perceived Inter-video therapy, if they had specific Inter-video therapist preferences, and if variables such as gender and prior video-link use were associated with more positive Inter-video therapy expectations. Understanding these issues is important given past research indicating that attitudes, expectations and preferences can influence therapist choice, therapeutic processes and therapy outcome (Connolly Gibbons, Crits-Christoph, de la Cruz, Barber, Siqueland, & Gladis, 2003; Greenberg et al., 2006; Kuusisto, Knuuttila, & Saarnio, 2011; Swift et al., 2011; for a fuller discussion, see the introduction).

The study employed an online questionnaire to evaluate what motivates students to commence e-therapy in general and what characteristics they would look for in an e-therapist (with specific reference to an Inter-video therapist). The study also addressed Inter-video therapy attitudes under different scenarios (e.g., when considering a shameful topic), anticipated outcome, and preferences for specific therapist factors such as e-therapy qualifications, therapist eye contact, and similarity between therapist and client. As outlined in the introduction, these factors were considered of special interest to the video-link modality, and analyses were performed to evaluate if video-link usage and prior therapy experience moderated Inter-video therapy preference, eye-contact preferences and anticipated outcome of respectively in-person and Inter-video therapy.

Expectations toward the Inter-video therapy experience were treated as a central outcome measure. It was hypothesised that high video-link users would be more comfortable with video-link communication and thus have more positive expectations. In addition, as Travers and Benton (2014) found a positive effect of prior therapy experience on e-therapy attitudes, it was assumed that participants with prior therapy experience would be more open to therapy in general and show more positive expectations. As considered in the Introduction, past research has found contrasting results regarding gender differences in perception and use of e-therapy, with some

indication that differences may depend on modality and problem area (e.g., Fridrici & Lohaus, 2009; Leibert, Archer, Munson, & York, 2006; Rochlen et al., 2004a; Young, 2005). Because Inter-video therapy is similar to in-person therapy with respect to therapist contact and degree of interaction, it was hypothesised that females would have a more positive perception of the Inter-video therapy experience as compared to males.

The study also evaluated the influence of shame levels, in-person therapy expectations and video-link appraisal on Inter-video therapy expectations. It was assumed that more favourable in-person therapy expectations and video-link appraisal would be associated with more positive Inter-video therapy expectations. Further, considering how the physical distance between client and therapist could make it seem easier to engage in therapy for shame-prone clients, it was hypothesised that higher levels of shame would be associated with more positive Inter-video therapy expectations (both experience and outcome).

1.01 Method

Participants

Of the 297 participants who started the survey, 229 completed it. There were no statistically significant differences between the completers and non-completers with respect to gender, age, student status or ethnicity. Of the 229 who completed the survey, 32 were excluded from the analysis for the following reasons: not identifying gender ($n = 1$); indicating that they lost concentration during the survey and were randomly picking their answers ($n = 3$); incorrectly answering the control question ($n = 16$; see below) and not being University of Canterbury students¹ ($n = 12$). A total of 197 participants were included in the final analysis. There were fewer psychology students among those excluded from the study as compared to those included (25.3% vs. 49%), but otherwise there were no differences.

¹ It was possible for anybody to access the survey link via the Psychology Department website where it was advertised. As the vast majority of respondents were University of Canterbury students it was decided to limit the analysis to this population.

The sample's age ranged from 17-60 years with a mean of 22.29 years ($SD = 7.23$). The majority were females (78.7%), from New Zealand (79.7%) and were undergraduate students (96.4%) who predominantly identified their ethnicity as being New Zealand, NZ European, or European (84.3%). A high number of participants (40%) indicated that they expected to major in psychology, or psychology and something else (e.g., law, biology, education).

Materials

The survey consisted of a number of sections, as detailed below. A copy of the survey is included in Appendix A².

Demographic questions. The demographic questions concerned gender, age, and country of origin, as well as ethnicity, level of education, student affiliation, and course of study.

Open-ended questions. Two open-ended questions gave participants the opportunity to indicate, in their own words, any factors that might lead them to consider e-therapy (exemplified in the survey as contact with a therapist through a video-link or email) and what therapist qualities they would look for. This mixed method approach provided a comprehensive description of the many different factors that may motivate people to seek out e-therapy (Bryman, 2006).

To ensure that participants understood what was meant by “what type of therapist they would look for”, the following examples were provided: gender, age, experience, education, personality traits, and interests. Thus, high frequencies of these themes are likely related to how the question was phrased.

Prior experience. One question addressed previous therapy experience. Participants could indicate four different degrees of prior therapy experience ranging from “No, I have never seen a therapist or counsellor” (1), to “Yes, I have seen a therapist or counsellor many times” (4). For the analysis, participants were categorised into those who did not have any prior therapy experience (43%) and those did (57%). Another question addressed previous use of a video-link (“Please

² A measure of attachment was included in the questionnaire, but was not considered in the analysis due to low internal consistency. Also questions concerning online safety were included for another study.

choose the answer that best (generally) corresponds to how often you have used or use a video-link (e.g., Skype) for online communication”). The question had eight response options ranging from “I have never used a video-link before” (1), to “I use a video-link daily” (8). About half (51%) of the participants used a video-link at least monthly, and these were categorised as “High users”, with the remaining participants (49%) categorised as “Low users”, including participants who had never used a video-link (4%).

Video-link appraisal. A total of seven questions were included to assess participants’ appraisal of using a video-link (e.g., “I generally enjoy talking through a video-link”, “It would be awkward for me to discuss personal problems through a video-link”). The questions were each answered on a 5-point scale from “Not at all like me” (1) to “Just like me” (5). Internal consistency was high, Cronbach’s alpha = .87, and after reversing negative items, a combined mean score was computed for each participant with higher scores indicating a more positive appraisal and an average mean of 2.87 ($SD = .79$)

The Internalised Shame Scale (ISS; Cook, 1994). The ISS measures shame as manifest in inferiority, worthlessness, inadequacy, and alienation. It consists of 24 items, each of which is answered on a 5-point scale, from “Never” (0) to “Almost always” (4), e.g., “I feel insecure about others' opinions of me”. The ISS measure also includes a measure of self-esteem, comprising a further 6 positively worded items from the Rosenberg Self-Esteem Scale (e.g., “I feel I have a number of good qualities, RSES; Rosenberg, 1965). The scores for each shame item can be summed to provide a total shame score that ranges from 0-96, with higher score indicating higher levels of shame (Cook, 1994). However, in this thesis, all measures are, for consistency and clarity, reported as mean scores rather than total scores, which allows the reader to relate a score back to the original response scale. Thus, a score of 0 indicates the participant reported never experiencing any shame whereas a score of 4 indicates that the participant reported almost always experiencing shame. The ISS scale has shown good score reliability and validity (Cook, 1994)

and, in this study, internal consistency was high (Cronbach's $\alpha = .97$). The average score was 1.69 ($SD = .88$), which is within expected norms of a non-clinical, young population (Cook, 1994).

Inter-video therapy preferences. A total of five statements were included to evaluate participants' preferences toward Inter-video therapy. Two of these concerned the likelihood of commencing Inter-video therapy as compared to other therapy delivery modalities (e.g., "I would prefer to talk with a therapist through a video-link rather than working with someone in-person"). Another three items concerned whether participants thought they might be more inclined to commence Inter-video therapy under certain circumstance (e.g., "I think talking with a therapist through a video-link might be especially beneficial for me if I were to talk about something I felt ashamed about"). All statements were rated on a 5-point scale from "Not at all like me" (1) to "Just like me" (5). The statements were considered individually to ascertain whether certain conditions (an emotional, shameful or specific topic) changed participants' Inter-video therapy preferences. For this purpose, mean scores of the individual items were compared and the 5-point scale was categorised into: "Not like me" (1-2), "Somewhat like me" (3) and "Like me" (4-5).

Inter-video therapist preferences. Participants were asked to imagine the following scenario: "For a period of your life you live in a rural area and need therapy to deal with a personal problem. Your only chance of seeing a therapist on a regular basis is through the Internet working with an online therapist through a video-link. There are a number of different online therapists you can choose from and we wonder what therapist characteristics would be important to you in order to find the best therapist match. Thus, please indicate to what extent the following statements describe you". The statements were each rated on a 5-point scale from "Not at all like me" (1) to "Just like me" (5). Three statements concerned therapist qualifications (e.g., "I would like an online therapist who has years of experience working online"), four statements were related to eye-gaze preference (e.g., "I would prefer an online therapist who engages in lots of

eye-contact”) and six statements addressed similarities between participant and therapist (e.g., “I would like an online therapist who is similar to me”). An additional five statements (e.g., “I would like an online therapist who dresses formally”) were included to provide some context around the other questions, but were not included in the reported analyses as they were not pertinent to the research focus. The preference items were each individually evaluated; the overall mean was presented and the items were re-categorised into “Not like me” (1-2), “somewhat like me (3) and “Like me” (4-5).

Inter-video therapy expectations. Four questions addressed participants’ Inter-video therapy expectations (e.g., “I would find it somewhat hard to talk with an Inter-video therapist”). Each question was rated on a 5-point scale from “Not at all like me” (1) to “Just like me” (5). The questions were repeated for in-person therapy. After reversing negative items internal consistency was high (Cronbach’s alpha = .85 for Inter-video therapy and .89 for in-person therapy) and a combined mean expectation score was computed for each participant, with higher scores indicating more positive expectations.

Anticipated outcome. One question was focused on anticipated Inter-video therapy outcome (using a video-link – e.g., skype - “Please rate how likely you think it is that you would benefit from counselling /therapy”). This question was answered on a 6-point scale from “Very unlikely” (1) to “Very likely” (6) and for analysis it was categorised into “Unlikely” (1-2), “Somewhat likely/unlikely (3-4) and “Likely” (5-6). The same question was repeated regarding the anticipated outcome from in-person therapy.

Quality assurance. At the end of the survey, participants indicated how thoroughly they had answered the survey by choosing between the following three statements: “I have read each question and chosen the best possible answer”, “I skimmed the questions and picked an answer that was somewhat right”, or “I lost concentration and did not read all the questions properly and at time I just picked the answers randomly”. Furthermore, a control question was included

amongst the items on therapist preferences. This question was worded in the following way: “If you have read this question properly, choose “Just like me”. This question was included to ensure that participants who were included in the analysis had paid attention to the questions (participants who did not choose “Just like me” were excluded). Finally, participants were invited write any comments about the survey.

Procedure

After review and approval from the University of Canterbury Human Ethics Committee, departmental email lists were used to advertise the survey to as many University of Canterbury students as possible. An email briefly introduced the study, invited students to participate, and provided them with a link to the online survey (hosted on Qualtrics, <http://www.qualtrics.com/>). The first page included a description of the survey and outlined the purpose of the study. At the conclusion of the survey, the participant was invited to follow a separate link to provide his or her contact details to participate in the draw of two NZ\$100 vouchers.

1.02 Results

The survey results are presented in the following way. First, an analysis of the open-ended questions is presented, followed by an examination of items relevant to Inter-video therapy and therapist preferences. Analyses are then presented evaluating different factors, which may explain the variance in anticipated Inter-video therapy outcome and experience expectations.

The Open-Ended Questions

Two researchers independently coded the participant responses to identify themes. Both had prior experience with qualitative data-analysis (from their master’s theses) and clinical assessment (both were enrolled in the clinical psychology program at Canterbury University). The identification of themes was partly guided by the different research interest (e.g., similarity theme) and literature on e-therapy (e.g., the hypothesis that the distance make therapy easier for some people). The identified themes were discussed, matched, and it was established what type of

statements should be grouped under which themes. The frequency of each theme was found by counting how many participants made comments related to it.

Reasons for commencing e-therapy. One hundred and seventy-three participants (87.8%) gave an answer to what might motivate them to commence e-therapy. Coding identified nine reasons across the participant responses, as shown in Table 1.1. The number (and percentage) of the participants who referred to each of these nine reasons in their response is also shown in the table. The most commonly cited reasons for participants to consider e-therapy were related to the convenience and accessibility.

Table 1.1

Reported Reasons Why Participants Might Commence e-Therapy

Reason	Brief Description	Example	Count
Accessibility	Ease of getting to a therapist	“a physical restriction”, “therapist being in different city”, “no local option – or dislike local option”	58 (34%)
Convenience	Reduced effort to meet with therapist	“less travel time” “more flexible”, “a busy schedule”	43 (25%)
Comfort	More comfortable with the distance or being able to talk from own home	“I am too shy to talk in-person”, “it is less threatening and may be easier sometimes to communicate when it isn’t face to face”, “Comfort of own home”	30 (17%)
Modality	Preference for a specific modality	“Ability to correspond via e-mail with a psychologist” “I am not sure I would try email therapy, more likely to try skype as then you could actually see and hear the therapist and know who you were talking to”.	26 (15%)
Cost	The e-therapy option seen as cheaper	“cheaper price”, “Expense”, “if it was free”	23 (13%)
Privacy/ Anonymity	Anonymous from therapist and/or from others e.g., family waiting room etc.	“Did not want to be seen going into a psychologists office/have my parents find out”	15 (9%)
Specific therapy issue	The issue itself would be the reason for choosing e-therapy	“issues such as agoraphobia or fear of strangers”, “Embarrassing problem, e.g., fetish”	12 (7%)
Reference	Therapist being recommended, referred or having a good reputation	“if the psychologist had an amazing reputation”, “their reputation”, “recommendations by someone”	8 (5%)
In-person option	Being able to also see therapist in-person	“if I had met the therapist in-person” “ I would need to have met them first”	5 (2.9%)

Important therapist qualities. One hundred and seventy-eight (90%) participants indicated what qualities they would look for in an e-therapist. Coding identified 12 qualities, as shown in Table 1.2. The number (and percentage) of participants referring to each theme is shown in the table. The most frequently identified characteristic was experience (although only one

participant stated experience specifically with e-therapy). Other highly endorsed themes were a relatable therapist, age, gender and qualifications.

Table 1.2

E-therapist Qualities that Participants Considered Important

Quality	Brief Description	Example	Count
Experience	Work experience	“experienced therapist”, “someone with lots of experience” “experience with my problem”.	91 (51%)
Relatable	Personality traits relevant to the development of the therapeutic relationship	“knows how to relate to people well” “someone empathetic”, “friendly”, nonjudgemental personality”, “kind”, “patient”.	85 (48%)
Age	Age indicated as relevant	Age unclear: 36 (“Middle aged”, “older”) Age below 40: 24 (“anyone in their 20-40”) Age above 40: 15 (“40-50”)	75 (42%)
Gender	Gender indicated as relevant	Gender unclear: 4 (“gender”) Female: 59 (“Female therapist”) Male: 10 (“male”)	73 (41%)
Qualifications	Therapist education, registration, training.	“clinical psychologist”, “registered psychologist”, “strong education”, “well educated”	67 (38%)
Similar	Similarity between therapist and participant	“one similar to me who I felt would be able to relate to me better”, “one who had similar interests to me”, “of similar(ish) personality”.	19 (11%)
Therapist as person	Request for who the therapist is as a person/individual	“quiet lifestyle, but well off as a result of a successful career”, “well travelled”, “has passions”, “has interests”	18 (10%)
Cultural requests	Request for specific cultural therapist characteristics	“a Christian therapist”, “New Zealand nationality” “non-religious”	6 (3%)
Technology affluent	Technology fluent	“someone technological able” , “familiar with technology”	6 (3%)
Method/ Technique	Therapist’s specific method	“Therapeutic style or strengths, e.g., I find CBT has worked best for me”	4 (2%)
Reputation	Therapist reputation	“referrals, testimonies”	4 (2%)
Appearance	Therapists Physical appearance	“if it were via video link I think the person would need to have certain type of appearance, e.g., appear trustworthy”.	3 (2%)

Inter-video Therapy Preferences

Table 1.3 presents an overview of the therapy preference items, with higher scores indicating a more positive attitude toward Inter-video therapy. Over three-quarters of participants indicated a preference for in-person over Inter-video therapy. However, Inter-video therapy was preferred to email therapy and although there was still only a minority indicating a preference for Inter-video therapy as compared to in-person (7%), the preference increased when the topic was an emotional one (15%), a shameful one (22%) or a specific topic (50%).

Table 1.3

Inter-Video Therapy Preferences

	Mean score	95% CI	Not like me	Somewhat like me	Like me
	Range 1-5		(1,2)	(3)	(4,5)
Prefer Inter-video to in-person	2.01 (0.98)	[1.87, 2.15]	76%	17%	7%
Inter-video easier than in-person if very hard or emotional topic	2.22 (1.12)	[2.06, 2.38]	68%	17%	15%
Inter-video would be beneficial if shameful topic	2.50 (1.15)	[2.34, 2.66]	54%	23%	22%
More likely to use Inter-video if specific and simple topic	3.23 (1.19)	[3.06, 3.40]	28%	21%	50%
Prefer Inter-video to email	3.49 (1.32)	[3.31, 3.67]	24%	23%	53%

Note. CI = confidence interval.

To test if the mean scores under the three scenarios (emotional, shameful and specific topic) were higher than the mean scores for Inter-video therapy preferences as compared to in-person, paired *t*-tests were performed. The results indicated the difference was significant, *t* (196)

= -4.17, $p < .001$, $d = .200$, for hard/emotional topic, $t(196) = -8.51$, $p < .001$, $d = .459$ for shameful topic, and $t(196) = -7.74$, $p < .001$, $d = 1.119$ for specific topic.

Furthermore to evaluate whether prior video-link usage and therapy experience had an effect on Inter-video therapy preferences, a multivariate analysis of variance (MANOVA) was performed, with video-link use (high/low) and prior therapy experience (yes/no) as the independent variables and the 5 items on Inter-video therapy preferences as the dependent variables. The MANOVA design (followed by discriminant analysis) was preferred to five separate univariate ANOVAs to control for the risk of type I errors, and because the dependent variables were conceptually and statistically correlated (Stevens, 2009). Results showed no statistically significant main effect of video-link use, Wilks' Lambda = .966, $F(5,189) = 1.31$, $p = .261$, $\eta_p^2 = .034$, and no statistically significant two-way interaction effect, Wilks' Lambda = .987, $F(5,189) = .479$, $p = .792$, $\eta_p^2 = .013$. There was, however, a statistically significant effect of therapy experience, Wilks' Lambda = .943, $F(5,189) = 2.28$, $p = .048$, $\eta_p^2 = .057$. To investigate the significant multivariate effect, discriminant function analysis was used and the standardized discriminant function coefficients and structure coefficients are presented in Table 1.4. As can be seen, the items with the highest standardized discriminant function coefficient was perception of Inter-video therapy as especially useful if the therapeutic topic was shameful. Participants with prior therapy experience were more likely to endorse this item.

Table 1.4

Standardized Discriminant Function and Structure Coefficients for the Significant Discriminant Function

	Function 1 Standardized discriminant function coefficients	Function 1 Structure coefficients
Prefer Inter-video to in-person	-.46	.224
Inter-video easier than in-person if very hard or emotional topic	-.33	.310
Inter-video would be beneficial if shameful topic	1.52	.689
More likely to use Inter-video if specific and simple topic	-.62	-.258
Prefer Inter-video to email	-.06	.000

Inter-Video Therapist Preferences

The Inter-video therapist preferences are presented separately for eye-contact, similarity and qualifications.

Eye-contact. The mean score for items related to Inter-video therapist eye-contact preferences are presented in Table 1.5, with scores above 3 indicating a preference toward more eye-contact.

Table 1.5

Inter-Video Therapist Eye-Contact Preferences

Item	Mean (Range 1-5)	95% CI	Not like me (1,2)	Somewhat like me (3)	Like me (4,5)
Does not look away if I tear up	3.74 (0.96)	[3.61, 3.87]	10.7%	21.3%	68.0%
Looks me in the eyes when we talk	3.57 (1.01)	[3.43, 3.71]	15.2%	28.9%	55.9%
Engages in lots of eye-contact	3.26 (0.99)	[3.12, 3.40]	21.3%	37.6%	41.1%
Does not look away when thinking	3.31 (0.95)	[3.18, 3.44]	16.8%	45.2%	38.1%

Note. CI = confidence interval.

The mean scores do not indicate a strong eye-contact preference, but confident intervals indicated all scores, with 95% certainty, were on average above the mean (3.0).

To determine if participants with a preference for less eye-contact showed higher levels of shame, one-way ANOVAs were conducted, with eye-contact preference items (not like me/somewhat like me/like me) as the independent variables and shame as the dependent variable. No statistically significant results were found, $F(2, 194) = .97, p = .380, \eta_p^2 = .010$, for “Does not look away if I tear up”, $F(2, 194) = 1.53, p = .219, \eta_p^2 = .016$, for “Looks me in the eyes when we talk”, $F(2, 194) = .056, p = .946, \eta_p^2 = .001$, for “Does not look away when thinking” and $F(2, 194) = 1.06, p = .349, \eta_p^2 = .011$ for “Engage in lots of eye-contact “. Furthermore, to determine if prior video-link use and therapy experience had an effect on preferences for eye-contact, a 2 (video-link use: high/low) by 2 (therapy experience: yes/no) MANOVA on eye-contact preferences was performed on the four eye-contact items. There were no statistically significant effects, video-link use, Wilks’ Lambda = .989, $F(4,190) = .53, p = .713, \eta_p^2 = .011$; therapy experience, Wilks’ Lambda = .967, $F(4,190) = 1.64, p = .165, \eta_p^2 = .033$; or the interaction term, Wilks’ Lambda = .968, $F(4,190) = 1.56, p = .184, \eta_p^2 = .032$.

Similarity. Preferences for the similarity items are presented in Table 1.6. There was not a general preference toward similarity with the therapist. For example, confidence interval indicated that, on average, there was a slight preference for a therapist from the participants' own generation or background (with 95% certainly the score was below the mean). In contrast, there was a positive bias toward a "similar" therapist and a therapist of the same gender (with 95% certainly the score was above the mean). The similarity preference was most pronounced with respect to "familiarity".

Table 1.6

Inter-Video Therapist Similarity Preferences

Item	Mean (Range 1-5)	95% CI	Not like me (1,2)	Somewhat like me (3)	Like me (4,5)
Would like a feeling of familiarity	3.91 (0.92)	[3.78, 4.04]	7.1%	19.3%	73.6%
Would like same gender therapist	3.39 (1.23)	[3.22, 3.56]	26.4%	21.3%	52.8%
Would like a therapist similar to me	3.27 (1.02)	[3.13, 3.41]	20.3%	37.6%	42.2%
Has been through the same problem	3.14 (1.04)	[2.94, 3.29]	26.4%	38.6%	35.1%
Grown up in similar setting	2.78 (1.05)	[2.63, 2.93]	39.1%	39.6%	21.3%
From the same generation	2.65 (1.05)	[2.50, 2.80]	49.2%	31%	19.8%

Note. CI = confidence interval.

Qualifications. Preferences for the therapist qualification are presented in Table 1.7. As expected, participants had a preference (calculation of confidence interval suggested that with 95% certainty the scores was above the mean) for a therapist with e-therapy training and experience, although participants particularly endorsed experience with their specific problem area as being important.

Table 1.7

Inter-Video Therapist Qualification Preferences

Item	Mean (Range 1-5)	95% CI	Not like me (1,2)	Somewhat like me (3)	Like me (4,5)
E-therapy experience	3.46 (0.88)	[3.34, 3.58]	18.3%	29.4%	52.2%
Specific e-therapy training	3.71 (0.95)	[3.58, 3.84]	9.1%	27.4%	63.5%
Experience with specific problem	3.94 (1.05)	[3.79, 4.09]	6.1%	18.8%	75.1%

Note. CI = confidence interval.

Anticipated Outcome

Anticipated outcome for both Inter-video and in-person therapy is presented in Table 1.8.

Overall, participants were, on average, more likely to anticipate benefit from in-person therapy. A paired t-test confirmed the mean difference was statistically significant, $t(196) = 7.424, p < .001, d = .533$.

Table 1.8

Anticipated Outcome for Inter-Video and In-Person Therapy

	Mean (Range 1-6)	Unlikely (1,2)	Somewhat likely/unlikely (3,4)	Likely (5,6)
Benefit of In-person	4.17 (1.24)	10.2%	47.2%	42.6%
Benefit of Inter-video	3.53 (1.16)	19.3%	66%	14.7%

To determine if there was a difference in anticipated outcome for Inter-video therapy related to shame, a one-way ANOVA was performed with anticipation outcome as the

independent variable (unlikely/somewhat/likely) and shame as the dependent. The ANOVA was statistically significant, $F(2, 194) = 3.363, p = .037, \eta_p^2 = .034$. Post-hoc tests (Tukey HSD, $p < .05$) indicated statistically significant ($p = .027$) higher levels of shame, for participants who thought it likely they would benefit from Inter-video therapy ($M = 2.01, SD = .93$) as compared to participants who thought it unlikely they would benefit ($M = 1.45, SD = .88$). There was no statistically significant difference ($p = .169$) in shame levels between participants who thought it likely they would benefit as compared to participants who thought it somewhat likely/unlikely ($M = 1.69, SD = .85$). Also, there was no statistically significant difference ($p = .316$) between participant who thought it unlikely as compared to those who thought it somewhat likely.

Additionally, to determine if high video-link usage and prior experience to therapy had an effect on anticipated Inter-video therapy outcome, a two-way ANOVA was performed, with video-link use (high/low) and therapy experience (yes/no) as independent variables and anticipated outcome as the dependent variable (see Table 1.9 for means).

Table 1.9

Means and Standard Deviations of Anticipated Outcome as a Function of Video-link Use and Therapy Experience.

	<i>n</i>	Means
High video-link use	101	3.72 (1.09)
Low video-link use	96	3.32 (1.20)
Therapy experience	112	3.65 (1.14)
No therapy experience	85	3.36 (1.17)

There was no statistically significant effect of therapy experience on anticipated outcome for Inter-video therapy, $F(1, 193) = 1.95, p = .165, \eta_p^2 = .010$, and no significant interaction, $F(1, 193) = .471, p = .493, \eta_p^2 = .002$. However, there was a significant effect of video-link use on anticipated outcome for Inter-video therapy, $F(1, 193) = 4.39, p = .034, \eta_p^2 = .022$, indicating that participants with a higher video-link use had more favourable anticipations.

Inter-video Therapy Expectations

The mean score for Inter-video therapy expectations was 2.73 ($SD = .88$). To determine if video-link use, therapy experience and gender had an effect on Inter-video therapy expectations, a three-way ANOVA was conducted, with video-link use (high/low), therapy experience (yes/no) and gender (male/female) as independent variables, and Inter-video therapy expectations as the dependent variable (see Table 1.10 for means). Only the interaction between video-link and therapy experience was included because additional interactions would result in an overly complex model (not accounted for by the proposed hypothesis) and small cell sizes (Stevens, 2009).

Table 1.10

Means and Standard Deviations of Inter-video Therapy Expectations as a Function of Video-link Use, Therapy Experience and Gender.

	<i>n</i>	Means
High video-link use	101	2.89 (0.88)
Low video-link use	96	2.57 (0.86)
Therapy experience	112	2.85 (0.93)
No therapy experience	85	2.57 (0.79)
Males	42	2.70 (.95)
Females	155	2.74 (.87)

Results indicated no significant effect of prior therapy experience, $F(1,192) = 3.41, p = .066, \eta_p^2 = .017$, or gender, $F(1,192) < .01, p = .975, \eta_p^2 < .001$, and there was no statistically significant interaction effect either, $F(1,192) = .36, p = .547, \eta_p^2 = .002$. However there was a statistically significant effect of video-link use, $F(1,192) = .36, p = .547, \eta_p^2 = .023$, indicating that participants with a prior video-link use had more favourable expectations toward the Inter-video therapy experience ($M = 2.89, SD = .88$ vs. $M = 2.57, SD = .86$).

To evaluate how well shame levels, appraisal of a video-link and in-person therapy expectations predicted Inter-video therapy expectations, a multiple regression was performed.

Preliminary correlation analyses indicated that there were positive and significant correlations between Inter-video therapy expectations and both video-link appraisal and in-person expectations (see Table 1.11). However, the correlation between shame and Inter-video expectations was not statistically significant. Shame was nevertheless included in the model because it was negatively correlated with video-link appraisal and could act as a suppressor variable.

Table 1.11

Pearson Correlation for Shame, Video-link Appraisal, In-person and Inter-video Therapy Expectations

	Shame	Inter-video therapy expectations	Video-link appraisal	In-person therapy expectations
Shame	-	.077	-.081	.008
Inter-video therapy expectations		-	.539	.408
Video-link appraisal			-	.257
In-person therapy expectations				-

The multiple regression model explained 38.1% (adjusted $R^2 = .372$) of the variation in Inter-video therapy expectations, $F(3,193) = 39.66$, $p < .001$. As outlined in Table 1.12 the effect of each predictor was statistically significant and the strongest predictor of Inter-video therapy expectations was participants' appraisal of communicating through a video-link.

Table 1.12

Summary of Regression Analysis for Inter-video Therapy Expectations

	B	SE (B)	Beta	t	Sign (p)	Partial correlations
Shame	.113	.06	.113	1.99	.048	.142
In-person therapy expectations	.266	.05	.285	4.87	.001	.331
Video-link appraisal	.527	.07	.475	8.08	.001	.503

1.03 Discussion

These results suggested that, on average, participants had neither very positive nor very negative expectations toward the Inter-video therapy experience. However, it was clear that most would rather work with an in-person therapist as compared to an Inter-video therapist, and most considered it more likely they would benefit from in-person than Inter-video therapy. This finding is consistent with studies indicating a preference for the in-person modality over e-therapy in community samples unfamiliar with e-therapy (Gun et al, 2011; Musiat et al, 2014; Rochlan et al, 2004; Travers & Benton, 2014). The results from this study suggest there is the same clear in-person preference also when people are specifically asked to compare the in-person modality to Inter-video therapy. However, consistent with Traver and Menton (2014), participants in this study also showed a preference for Inter-video therapy as compared to email therapy. However, it is noteworthy, that clients who have trialled Inter-video therapy show high satisfaction with their treatment (Lozano et al, 2015) and, in a recent review, Simpson and Reid (2014) noted that some studies ($N = 3$) have found Inter-video therapy clients indicated a preference for their Inter-video therapeutic relationship over in-person therapy. Considering such findings, it is possible Inter-video therapy motivation increase after participants have had a chance to engage with Inter-video therapy.

Participants' perception of Inter-video therapy were relatively more positive if the topic was emotional or shameful, which supports the hypothesis that distance may make it easier to talk about difficult or embarrassing topics (e.g., Pelling, 2009; Simpson et al., 2005). Nevertheless, participants' perceptions of Inter-video therapy were most positive if the topic to be discussed was simple and specific. This finding implies that Inter-video therapy may be perceived as less suitable for more complicated problems and that people are more likely to seek out Inter-video therapy if they consider their problem to be relatively easy to deal with. Consistent with prior research (see for example Richards & Vigano, 2013), the main advantage of e-therapy (listed in

the open-ended questions) was accessibility and convenience. The most desired therapist quality was therapy experience and the ability to facilitate a positive therapeutic relationship. As expected, participants did endorse e-therapy qualification and training as important. However, it is noteworthy, in the open-ended questions only one participant mentioned specific experience with e-therapy as an important quality, and less than half indicated qualifications were important to them. This may be a concern considering Upsdell, Pelling, and Campbell's (2012) evaluation of Australian e-therapy provider's websites and their conclusion, which indicated poor and varied compliance with existing professional ethical guidelines. This current study indicates that the majority of potential clients are unlikely to request information concerning qualifications, professional affiliation or ethical compliance.

In contrast to expectations, there was no clear preference for similarity, only a potential preference for "familiarity" and a therapist of the same gender. The potential role of familiarity in the context of similarity is considered in Study 2. As hypothesised, there was a preference for more rather than less therapist eye-contact. Although this preference was less pronounced than expected, it supports the hypothesis that the eye-contact distortion associated with Inter-video therapy could have a negative effect on the Inter-video therapy experience. Surprisingly, there was no statistically significant association between shame levels and eye-contact preferences. It is possible that, although people with higher levels of shame may feel more comfortable with less eye-contact, they do not consider eye-contact avoidance as productive, and this may be especially true in a therapy context. This view is consistent with the results of a study on how being prone to shame influenced a student population's ($N = 55$) evaluation of therapist responses to shame disclosure (Dorahy, Gorgas, Hanna, & Wiingaard, 2015). Dorahy et al (2015) found that despite a natural tendency to avoid, people who were prone to experience shame did not endorse withdrawal responses to shame as helpful in a therapeutic context. Nevertheless, in the present survey study, participants who anticipated they would benefit from Inter-video therapy did

experience significantly higher levels of shame as compared to participants who did not anticipate a benefit. Also, shame had a positive effect on Inter-video therapy expectations. This finding supports the hypothesis that Inter-video therapy may appear less threatening and so is more appealing to people with higher levels of shame.

In this study, there was no statistically significant difference between males and females regarding Inter-video therapy expectations and therefore the results did not support the hypothesis that females are more likely to embrace e-therapy modalities with a higher degree of therapist contact. Instead, the results support the hypothesis, proposed by Rochlen et al. (2004), that the atmosphere and conditions of e-therapy is (relatively) more acceptable to men and this explains why, in contrast to in-person therapy, there is not a positive female bias with respect to the perception of e-therapy. As mentioned, this present study indicates this general advantage of e-therapy may also apply to Inter-video therapy. It is noteworthy that differences observed between males and females in other e-therapy studies could revolve around the actual experience and use of e-therapy rather than how e-therapy is perceived by a sample without any experience to the therapy delivered over a distance (e.g., Fridrici, Lohaus, & Glas, 2009; Leibert et al., 2006; Young, 2005). This is further explored in Studies 3 and 4.

There was not a statistically significant effect of prior therapy experience on anticipated outcome for Inter-video therapy or expectations toward the Inter-video experience. There was, however, a significant effect of therapy experience, indicating that those who had experience with therapy were more likely to consider Inter-video therapy to be beneficial if the therapeutic topic was shameful. This effect may be related to these participants' sense of the difficulties and experiences of vulnerability that can occur in therapy, which may have increased their appreciation of when Inter-video therapy could be advantageous.

As expected, participants who used a video-link more frequently had more favourable outcome anticipation toward Inter-video therapy and more positive expectations toward the Inter-

video therapy experience. In addition, more positive appraisal of video-link communication was associated with more positive Inter-video therapy expectations. This finding indicates that using and feeling comfortable with the technology involved in Inter-video therapy may be associated with greater willingness to engage in such therapy and feeling more comfortable with it. In addition, positive in-person therapy expectations also increased participants' expectations toward Inter-video therapy. This finding implies that being invested in in-person therapy and having positive in-person therapy expectations does not compromise how Inter-video therapy is perceived. Instead, the results indicate that people who have a positive in-person therapy attitude may transfer it to Inter-video therapy and thus over time clients may be able to switch from in-person to other therapy delivery modalities.

In summary, the results from this study indicate people may have a more positive perception of in-person therapy as compared to Inter-video therapy. Potential clients may primarily consider working through the video modality if their problem is simple and specific or if they for any reason require the easier accessibility, convenience and comfort associated with Inter-video therapy. Also, people who are used to working through a video-link seem to have a more positive perception of Inter-video therapy and the Inter-video modality may be especially appealing to people prone to feeling shame. Finally, the results indicate that a therapist who provides a sense of familiarity may enhance peoples' perception of an Inter-video therapist and more eye-contact could improve the Inter-video therapy experience. The effect of eye-contact on the Inter-video therapeutic process and the potential role of similarity (as expressed in facial similarity) on therapist expectations is explored in the following studies.

Study 2: The Effect of Facial Similarity on Inter-video Therapist Choice and Expectations

Similarity influences how people perceive and behave toward each other. For example, research suggests that people find those similar to themselves to be more attractive, and similarity increases compliance, positive affect, and helping behaviour (Burger et al., 2004; Guéguen, Martin, & Meineri, 2011; Montoya, 2008; Park & Schaller, 2005). Furthermore, patients may have a preference for health professionals who are of the same age, gender and ethnicity as the patient him or herself (Furnham & Swami, 2008). Noteworthy, in Study 1 several participants (11%) noted they would look for some sort of similarity in a potential Inter-video therapist.

One easily discernible type of similarity is physical similarity, especially with respect to facial features and expressions. A growing number of studies have demonstrated that people have a preference for others who look similar to them; for example, research indicates physical similarity can sway whom people will vote for in an election (Bailensen, Iyengar, Yee, & Collins, 2008). One eloquent way of enhancing perceived similarity between individuals is the use of so called morphing software, which combines images of two people to create a composite image. Different percentages of each image can be used to vary the degree of similarity between a given participant and the target image. Including approximately one third of an individual's image in the image of another, results in considerable physical resemblance between the two images, although people are usually unaware of themselves being part of the composite image (e.g., Bailensen et al., 2008). Physical resemblance between two images has been shown to increase likeability, trust and preference for the more similar image as compared to an image with no physical resemblance (Bailensen et al., 2008; Debruine, 2002; 2004). Debruine (2002; 2004) suggested this could be related to an evolutionary preference for people who look familiar as familiarity could indicate kinship. Considering this suggestion, it is noteworthy that participants in Study 1 endorsed a preference for a therapist who provided some degree of familiarity.

Clients' first encounter with a potential Inter-video therapist is likely to be through the Internet, potentially via a website with information about the therapist. Such information will often include a picture of the therapist alongside a description of who the therapist is and how he or she works. Considering the role of facial contact involved in Inter-video therapy, the therapist's facial appearance could have an influence on how a client perceives the therapist and physical similarity between a potential client and therapist could be an influential factor on client-therapist choice and expectations.

In this study, a digital picture morphing technique was used to illustrate on a website the face of a therapist with similar facial features to the participant (therapist-self) and compared evaluations of this therapist with those of a therapist morphed with someone else (therapist-other). Further, participants were asked to evaluate a therapist represented only with a silhouette, not a photograph (therapist-silhouette), to provide a measure of participants' perception of a therapist for whom they had no visual information.

It was hypothesised that participants would show more positive expectations toward an Inter-video therapist who had facial features similar to themselves (therapist-self) and be more likely to choose working with the similar therapist. Further, as participants with past therapy experience might be influenced by their prior experience, it was hypothesised that the effect of facial similarity might be reduced for these participants as compared to those with no experience who may be more influenced by peripheral (e.g., similarity) factors. Furthermore, prior research indicates the positive effect of facial resemblance may be more pronounced when the resemblance between two people is also of the same gender (Debruine, 2004). Thus, in this study male participants were morphed with male therapists and visa versa, and gender was included in the analysis of how similarity influenced therapist expectations. Furthermore, to ensure the therapeutic context was relevant to the participants, a student population, the potential therapy

topics selected were examination anxiety and time management. Finally, participants were also asked to rate which e-therapy modality they would rather work through.

2.01 Method

Participants

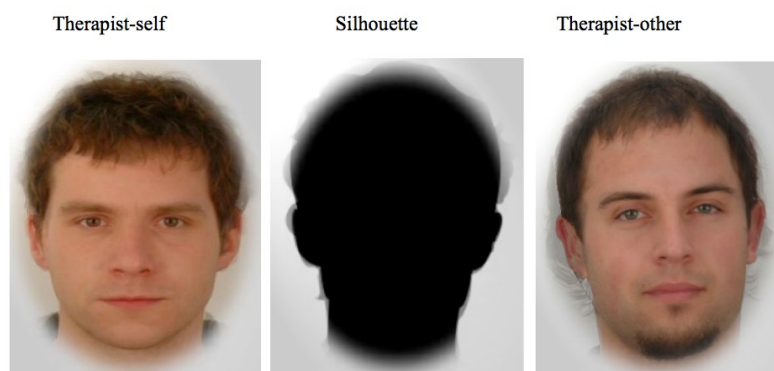
Forty students (20 female) were recruited through university email-lists and posters on Canterbury University campus. The students were aged between 17 and 49 years ($M = 26.17$, $SD = 7.98$), were predominately New Zealand/European (83%) and volunteered to participate in a study on how potential therapists are perceived in return for a NZ \$5 coffee voucher.

Materials

The morphs. The program Fanta-morph (www.fantomorph.com) was used to create morphed photographs for use in the study. A systematic morph procedure was developed based on 47 control points between two pictures. A grey mask was used around the morphs so any unmatched shoulder width or cloth (hoods, high collar etc.) was not visible, and sidelights made the shadows around the therapists' faces appear more natural (see Figure 2.1).

Figure 2.1

Examples of Therapist-self, Therapist-other and Silhouette



The male therapist photographs were downloaded, with permission, from the PUT face database (www.biometrics.cie.put.poznan.pl). However, the database did not have any images of females of an appropriate age and thus two females in their early thirties volunteered to pose as therapists. The participant's photograph was taken using a Nikon d80 digital camera. The light, resolution and exposure for the female therapists and all the participant photographs were similar as was a uniform colour background, auto-focus and white balance set on fixed manual value. Each participant's photograph was morphed with one of the therapists of the same gender, with equal numbers morphed with each therapist's photograph. This created the therapist-self photograph used in the study.

In order to control for any picture bias that could result from the morphing procedure, participants were presented only with morphed photographs. Accordingly, the other photograph used in the study (therapist-other) was created by morphing the photograph of each therapist with that of a volunteer university student of the same gender as the therapist; the volunteers were both of European-New Zealand descent, of average height and weight and aged in their early twenties. Similar to past studies, the morph ratio was 65% of the original therapist photograph and 35% of the other photograph (e.g., Bailensen et al., 2008).

Therapy website. A mock website - Therapy2day - was created as a part of the online questionnaire. The site described the purpose of Therapy2day, providing therapy for student related issues, and explained how the site delivered therapy through a video-link (see Appendix B.1 for more detail). To ensure the photographs were salient, information about the Inter-video therapists working for the site were described in few words and as having similar levels of education, years of experience and areas of expertise (all related to working with students). For example, the first therapist description read as: "Hi, my name is John. I graduated with a psychology degree in 2004. I have worked with student-related issues at different universities for

several years. If you have any questions about me, my work, or working with video, feel free to contact me on: john@therapy2day.com". Such information was included to ensure the therapists were perceived as qualified and to have relevant experience. The other descriptions can be seen in Appendix B.2.

Questionnaire. A copy of the questionnaire is included in Appendix B.3³.

Demographic. Participants indicated their age in years, their gender and ethnicity.

Therapy experience. Similar to Study 1, prior therapy experience was indicated on a 4-point scale ranging from "No, I have never seen a therapist or counsellor" (1) to "Yes, I have seen a therapist or counsellor many times" (4). For the analysis participants were categorised into those without (58.3%) and those with some degree (41.7%) of prior therapy experience. Participants were also asked to indicate experience with e-therapy, but this variable was not considered further as no participants had any prior experience with e-therapy.

Time-management and exam anxiety. Two questions addressed the participants' degree of problems relevant to the potential therapeutic work ("Have you had problems with exam anxiety", "Have you had problems with time management?"). The questions were answered on a 4-point scale from "Never"(1) to "Many times" (4). The majority of participants (91.7%) had struggled with some degree of either exam anxiety or time management and only few (8.3%) had never experienced either of these issues.

Therapist Expectations and choice: Ten questions were developed to assess participants' expectations towards working with a potential therapist. The questions focused on important aspects of the therapeutic relationship such as expertise (e.g., "I think the therapist would be skilful in his/her collaboration with me"), trustworthiness (e.g., "I think I would conceal some personal issues from the therapist") and attractiveness (e.g., "I think the therapist seems

³ The Rosenberg Self-Esteem Scale (Rosenberg, 1965) and the Social Intimacy Scale (Miller & Lefcourt, 1982) were also included in the questionnaire but as these measures were not the same as those used in the other studies reported in the thesis and they had no influence on the analysis of similarity effects, they are not included in the results section.

friendly”). Participants indicated their agreement with each statement using a 4-point scale, ranging from “strongly disagree” (1) to “strongly agree” (4). Internal consistency was high (Cronbach’s alpha = .90 for therapist-self, .82 for therapist-other and .89 for therapist silhouette) and after reverse coding of relevant items, a combined mean score for each participant was computed with higher scores indicating more positive therapist expectations. After participants had rated the therapists, they were asked to choose which of the three therapists they would prefer to work with.

Modality openness. On a 4-point scale ranging from “Strongly disagree” (1) to “Strongly agree” (4) participants indicated to what extent they would like to work with the presented Inter-video therapists through different modalities (e.g., chat, audio, video and in-person). For the analysis participants were categorised into those open (3-4) and those not open (1-2) toward each of the modalities.

Questions for therapist. At the end of the survey participants were given the opportunity to indicate what sort of questions they would ask the therapists before commencing Inter-video therapy. These questions were analysed in the similar manner as used for the open-ended questions in Study 1.

Procedure

The study was commenced after review and approval by the University of Canterbury Human Ethics Committee.

Participants arrived individually at the laboratory and were informed that they would be taking part in two separate studies. The first study was presented as a pilot study investigating how light, contrast, and camera angle influenced the perception of visual representation on the web. For this study, the participant had a face only photograph taken. The photograph was used to create a morph of the participant and a potential therapist, as detailed above.

While the experimenter created and uploaded the morphed image in a partitioned off area of the experimental room, the participant completed the questionnaire, which was presented as the separate second study. The first part of this online survey contained the questions about participant demographics and characteristics. The second part linked the participant to the mock website, “Therapy2day”. The participant was presented, one at a time, with the brief text and photograph or silhouette of each of the three therapists working for Therapy2day. The silhouette was always the second of the three therapists shown to the participant. Presentation of the two therapist morphs was counterbalanced so therapist-self would be shown first to every other participant, and therapist-other shown last (and vice-versa for the other participants). After each therapist presentation participants answered the questions about their expectations toward working with the therapist. After the survey was completed, participants were debriefed and asked whether they noticed anything unusual about the photographs. Four participants indicated that they recognised themselves in the self-morph, and were thus excluded from the analysis; accordingly only 36 participants were included in the data analyses reported below.

2.02 Results

The effect of similarity on Inter-video therapist expectations and choice is presented first. Then participant questions for the therapists and their modality openness are considered.

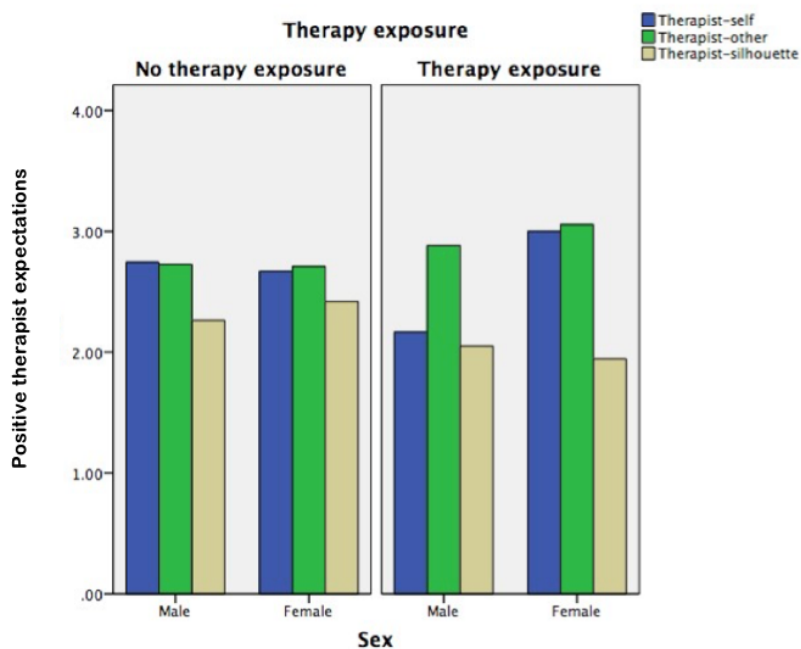
Similarity Effect

Means for the therapist expectation measures were 2.69 ($SD = .48$) for therapist-self, 2.83 ($SD = .35$) for therapist-other and 2.19 ($SD = .51$) for therapist-silhouette. A 3 (therapist: therapist-self/therapist-other/therapist-silhouette) by 2 (participant gender: male/female) by 2 (therapy experience: yes/no) ANOVA on therapist expectations, with repeated measures on the first factor, revealed a significant main effect of therapist, $F(2, 31) = 34.10, p = .008, \eta_p^2 = .687$, and a significant 2-way interaction between therapist and participant gender, $F(2, 31) = 7.27, p =$

.003, $\eta_p^2 = .319$. These effects were qualified by a significant 3-way interaction between therapist, participant gender and therapy experience, $F(2, 31) = 5.74$, $p = .008$, $\eta_p^2 = .270$. The mean scores of therapist expectations as a function of gender and therapy experience are illustrated in Figure 2.2.

Figure 2.2

Bar-plot of Positive Therapist Expectations (Self, Other and Silhouette) as a Function of Participant Gender and Therapy Experience



The 3-way interaction was further investigated by conducting separate 3 (therapist) by 2 (participant gender) ANOVAs for participants who had prior therapy experience and those who had no therapy experience.

For participants with no prior therapy experience ($n = 21$), there was only a significant main effect of therapist, $F(2, 18) = 6.63$, $p = .007$, $\eta_p^2 = .352$. Post-hoc comparisons (Tukey HSD, $p < .05$) showed no significant difference between ratings of therapist-self and therapist-

other, but a significant difference between therapist-self (2.71) and the silhouette (2.33) and therapist-other (2.71) and the silhouette.

For participants with prior therapy experience ($n = 15$), there was a significant main effect of therapist, $F(2, 18) = .32.53, p < .001, \eta_p^2 = .844$, and a significant therapist by participant gender interaction, $F(2, 18) = 4.71, p = .031, \eta_p^2 = .439$. Post-hoc comparisons (Tukey HSD, $p < .05$) between therapist types were computed separately for the male and female participants. For female participants, there was no significant difference between the ratings of therapist-self and therapist-other but a significant difference between both therapist-self and therapist-other and the silhouette ($M = 3.00$ and 3.06 vs. 1.94). For the male participants, there was a clear preference for therapist-other who was rated significantly higher than both the therapist-self and therapist-silhouette, who did not differ from one another ($M = 2.88$ vs. 2.17 and 2.05). Post-hoc tests (Tukey HSD, $p < .05$) were also computed comparing male and female participant scores separately for each of the therapist conditions. There was no significant difference in the evaluations by male and female participants of either therapist-other ($M = 2.88$ and 3.06) or silhouette ($M = 2.05$ and 1.94) but there was a significant difference between evaluations of the therapist-self ($M = 2.16$ vs. 3.00).

Given the differences in therapist expectations, therapist choice was first considered as a function of therapy experience and gender (see Table 2.1).

Table 2.1

Therapist Choices as a Function of Participant Gender and Prior Therapy Experience

	No therapy experience			Therapy experience		
	Male	Female	Total	Male	Female	Total
Therapist-self	7	7	14	1	3	4
Therapist-other	3	3	6	5	6	11
Therapist-silhouette	0	0	0	1	0	1

A chi-square⁴ analysis indicated no statistically significant differences in the pattern of selections between males and females, $\chi^2 (1, N = 35) = 2.20, p = .333$. However, there was a statistically significant effect, $\chi^2 (1, N = 35) = 6.44, p < .05$ ⁵ of therapy experience indicating participants with no therapy experience showed a greater than expected preference for therapist-self and a lower than expected preference for the therapist-other. In contrast participants with therapy experience showed a greater than expected preference for therapist-other and a lower than expected preference for therapist-self.

Questions for the Therapists

All 36 participants provided a number of questions they would find relevant to email the therapists. A number of themes were identified, as indicated in Table 2.2. Questions about work experience, qualifications and personal interests were the most common, while only one or two participants posed questions specific to e-therapy (e.g., in-person option, security, e-therapy enquiry).

⁵As only one participant selected the silhouette his data were excluded from this analysis

Table 2.2

Participant Questions for the Therapists Categorised in Themes

Theme	Example	Count
Work experience	“what is their past professional experience?”, “how long have they been working as an online therapist?”	19 (52.7%)
Qualifications	“any specific therapy training they have done”, “where did you get your degree?”	17 (47.2%)
Personal interest	“her personal background”, “what do you like to do in your leisure time?”	14 (38.9%)
Work motivation	“do you like your job?”, “how she manage to listen all the time to problems of others”	8 (22.2%)
Age	“what age is she?”, “their age”	6 (16.7%)
Success rate	“how many people have you helped”, “history of successful therapy”	5 (13.9%)
Price	“what is the price involved?”	2 (5.6%)
In person option	“could I also meet them in person before starting online therapy? (I would get a better sense of whether I could trust them)”	2 (5.6%)
Security	“how do I know my sessions will remain confidential?”	2 (5.6%)
Availability	“I would like to know the availability of therapists, if they can do weekends or evenings”	1 (2.8%)
E-therapy enquiry	“why online therapy rather than face to face?”	1 (2.8%)

Modality Openness

Openness to the in-person modality was high (88.9%). Out of the e-therapy modalities openness to Inter-video therapy was highest (78%), followed by audio only (58%) and then text-based therapies such as email and chat (both 50%).

2.03 Discussion

The hypothesised positive similarity effect was not supported in this study. Instead, the effect of similarity on participants’ expectation toward the Inter-video therapists was moderated by prior therapy experience and gender of the participants. There was no similarity effect for

participants without prior therapy experience, only a preference for the therapists represented by a photograph rather than the silhouette (for an explanation of this preference see further below). This was also the case for female participants with therapy experience. In contrast, male participants with prior therapy experience had significantly higher expectations toward the therapist morphed with somebody else than toward either the therapist who was morphed with self or toward the therapist represented by a silhouette. Although only the male participants showed this lower evaluation of the similar therapist, it is noteworthy that the choice of therapist revealed an overall preference for the therapist who was not similar, for both male and female participants with therapy experience. Thus, the results indicate a negative similarity effect for participants, especially males, with therapy experience. However, therapist choice indicated the expected positive similarity effect for participants without therapy experience.

Although many studies have demonstrated a positive similarity effect (Bailensen et al., 2008; Burger et al., 2004; Debruine, 2002; 2004; Guéguen, Martin, & Meineri, 2011; Montoya, 2008; Park & Schaller, 2005), there is some past research showing that, under some conditions, similarity can have a negative influence on evaluations of others, as in the present study (e.g., Taylor & Mettee, 1971). Of particular relevance for the present research may be the context in which the judgments are being made, with a negative similarity effect being more likely in situations related to help or assistance (Fisher & Nadler, 1974; Fisher, Nadler, & Whitcher-Alagna, 1982). For example, Fisher and Nadler (1974) studied the effect of similarity-dissimilarity between a helper and a recipient on the recipient's self-perception. The study included male students at a university ($N = 96$) who were asked to participate in a stock market simulation game and results indicated that receiving aid from a similar other had a negative effect on the recipient's situational self-esteem and self-confidence. In contrast, aid from a dissimilar other had a positive effect on situational self-esteem and self-confidence. Therapy usually encompasses a helping dimension whereby an individual seeks assistance from a professional to

make changes to his or her behaviour or cognitions. Thus, it is possible that those receiving therapy may, like those receiving help, evaluate those offering the help (i.e., therapists) less positively the more similar they appeared to themselves. Interestingly, the negative similarity effect was only found for participants with prior therapy experience. It is possibly this can be explained by a third variable which led them to seek a therapist in the first place, or that prior therapy experience in itself influence peoples' perception of a therapist. Specifically, participants with prior therapy experience may have more insight into the therapeutic processes. Being in therapy often involves a degree of openness when people disclose sensitive material about themselves. Thus, participants with therapy experience may associate therapy with a sense of being vulnerable and a more similar therapist may increase the sense of vulnerability. This argument is consistent with research indicating that receiving aid from a similar other can constitute a self-threatening experience because it highlights the receiver's relative inferiority and dependence (Fisher, Harrison, & Nadler, 1978; Nadler, Fisher, & Streufert, 1976). People without therapy experience may not associate therapy with self-disclosure and feeling susceptible which may explain why, with respect to therapist choice, we see a negative similarity effect for people with therapy experience and a positive effect for people without such experience.

A similar argument may account for why there was a more pronounced negative similarity effect for males with therapy experience. In general males are less likely to make use of therapy than are females (Ang et al., 2004; Fischer & Turner, 1970; Rochlen et al., 2004a; Vessey & Howard, 1993) and males may find themselves feeling especially vulnerable and fragile in the therapy context and thus may respond more strongly to the self-threat posed by a more similar therapist. Alternatively, the males might have perceived the therapist as unhelpful because the therapists appeared relatively young. Although the therapists were supposed to appear to be in their early thirties, they were morphed with students in their early twenties, and for this reason the morphed image in some cases appeared rather young for an experienced therapist. This was

especially true for the male participants, and there is some research to suggest that males have a negative response to unhelpful similar agents. For example, using digital morphing technique, Vugt, Bailenson, Hoorn, and Konijn (2010) studied how a student sample ($N = 64$) responded to help from either similar or dissimilar virtual agents. The students were asked to perform two tasks in virtual reality (identify correct answers to a number of quiz questions) and provided with a virtual support agent who either resembles themselves or not. In addition the agent was either helpful or unhelpful. Vugt et al. (2010) found that when exposed to unhelpful virtual agents, male participants responded more negatively to the similar agent as compared to the dissimilar agent. Considering this finding, future research may evaluate whether there is a positive similarity effect on therapist expectations when male participants are exposed to morphed images of older therapists.

Regardless of similarity, participants clearly chose to work with one of the therapists represented by a photograph, indicating that knowing how a therapist looks is important to potential clients and that a photograph will increase an Inter-video therapists' chance of being the therapist of choice. An explanation for this is that a photograph provides some personal information about the therapist, which may increase a potential client's sense of who the therapist is and in turn this may decrease the experience of both personal and physical distance to a therapist. This suggestion is consistent with Jones and Stokes (2009) who, in their book on the practice of e-therapy, suggested clients need more personal information about an e-therapist to bridge the physical distance and increase a sense of closeness with the therapist. This may also explain why some participants in Study 1 indicated the therapist's personal background and interests were important to them.

In this study the potential therapy topic was relatively simple and specific and relevant to the majority of participants (over 90% noted that they had experienced exam anxiety or had issues with time management). This is important because people may perceive Inter-video therapy as

more suitable for simple and specific issues rather than more complex one (as indicated in Study 1) and the specific therapy topic employed in this study could explain why a high proportion of participants were open to the Inter-video modality.

Similar to Study 1, analysis of the open-ended questions indicated participants were most interested in the therapists' general qualifications and work experience rather than specific qualifications related to Inter-video therapy. These findings may suggest that potential Inter-video therapy clients perceive therapeutic in-person qualification as transferrable; a competent in-person therapist would also be considered competent to deliver Inter-video therapy. This is relevant because professionals (e.g., psychologists) may not perceive their competences as being easily transferrable (e.g., Lozano et al., 2015; Rees & Stone, 2005). Future research may further evaluate whether the users perception of the clinician's in-person qualifications transfers to Inter-video therapy and how it influence professionals (e.g., psychologists) confidence with respect to delivering therapy via a video-link.

In summary, and in contrast to much past research, physical similarity did not enhance participants' expectations toward the therapists. Rather, it decreased expectations for those with prior therapy experience, especially for the male participants. One explanation may be that a similar helper can represent a self-threat, which may be more pronounced for males. The study indicated prior therapy experience had an effect on people's perceptions of a therapist. Whether prior experience has an influence on the actual therapy experience is explored further in Studies 3 and 4.

Study 3: The Effect of Therapist Eye-contact on the Therapeutic Relationship

Non-verbal behaviours have been considered important to the development of the therapeutic relationship (e.g., Shea, 1998), and communication through a video-link reduces the availability of some non-verbal communication, usually including only facial expressions and potentially the upper body (Nguyen & Canny, 2009). Nevertheless, research indicates that a strong therapeutic alliance can develop in Inter-video therapy (for a review see Backhaus et al, 2012, Lozano et al, 2015) and across a range of e-therapeutic modalities (e.g., email, chat) that do not involve any visual non-verbal behaviour (for a review see for example Cavanagh & Millings, 2013; Sucala et al., 2012). Such findings poses a significant challenge to the underpinnings of the therapeutic relationship and suggests that research on e-therapy must employ a broader framework to understand what creates, for example, a user's trust in a web-programme and therapist.

It is noteworthy, some interactive web-programmes involve virtual characters that display a significant amount of non-verbal communication (see for example a program such as SPARX; Merry, Stasiak, Shepherd, Frampton, Fleming, & Lucassen, 2012). Also, Murphy and Mitchell (1998) emphasised the importance of using words to describe the non-verbal aspects of the communication (emotional bracketing) when delivering therapy via email. Indeed they proposed that one benefit of email therapy could be the carefully worded explanations of the meaning of the non-verbal gestures, and speculated that this could serve some client groups who struggle to perceive non-verbal language accurately. Nevertheless, as discussed by Pelling (2009) from the client's end only consciously perceived non-verbal information can be made explicit to the therapist, and this could have a negative effect on e-therapy interactions. Considering such research non-verbal communication may still play a role in how clients relate to an e-therapist or an e-therapy program.

Regardless of how the relationship develops in other e-therapy modalities, one challenge with Inter-video therapy is that although it does provide important non-verbal visual information (face and upper body), eye-contact, which is used for example to indicate turn taking, intimacy and connection (Kleinke, 1986; Mukawa et al., 2005), is distorted in video-link communication (Grayson & Monk, 2003). In brief, when the therapist is looking directly at the eyes of the client on the screen, it will appear to the client as if the therapist is looking down. Although this distortion can be reduced by certain technical logistics (placement of camera and distance to the screen) it can be a concern for providers (e.g., Lozano et al., 2015). Although there is research on the role of eye-contact in video-link communication in other areas of psychology and in computer science (e.g., Fullwood & Doherty-Sneddon, 2006; Nguyen & Canny, 2009) no research has evaluated the effect of eye-contact on the Inter-video therapeutic relationship. This is important because it is possible that, although the distortion (downcast eye gaze) is often conceptualised as a problem, it may not actually be. In fact, it may be advantageous for some clients who are more comfortable with less eye-contact. To study the role of eye-contact on therapy processes in more detail, the present study employed an experimental design with two different eye-contact conditions, one where participants consistently received therapist eye-contact and one where participants received no therapist eye-contact. Measures of empathy and working alliance were included to provide an assessment of two central aspects of the therapeutic relationship. Also, participants were asked to indicate any alliance ruptures. This was done to evaluate whether eye-contact had an effect on participants tendency to experience some degree of tension or misunderstandings.

Considering past research, the absence of eye-contact may result in an experience of not feeling connected to the therapist which may have a negative effect on the therapeutic relationship, especially empathy and the emotional connection with the therapist (Dowell & Berman, 2013; Mast, 2007; Sharpley, Jeffrey, & McMahan, 2006; Sharpley & Sagris, 1995).

Accordingly, it was hypothesised that participants would evaluate the therapeutic relationship more positively in the direct eye-contact condition as compared to the no eye-contact condition. However, it was also considered important to evaluate other factors that might influence the effect of eye-contact on therapy processes. As discussed in the introduction, research suggests that people who struggle with shame or, more specifically, shameful topics (e.g., bulimia) might find it easier to engage in Inter-video therapy (e.g., Cohen & Kerr, 1999; Simpson et al., 2005). One reason for this may be the absence of direct eye-contact because shame is associated with avoidance behaviour (Nathanson, 1992) and people tend to decrease eye-contact when talking about something shameful (Kaufman, 1996; Vandromme, Herman, & Spruyt, 2011). Thus, participants who endorse high levels of shame on a questionnaire may also indicate high levels of comfort with a therapist who provides low levels of direct eye-contact. There was no statistically significant association between eye-contact and shame levels in Study 1, but that study was on preferences rather than the actual experience of receiving more or less eye-contact. To test if there was an interaction between shame and eye-contact, the internalised shame measure was included in the study.

Prior experience with video-link communication may also have an effect on how people experience the eye-contact distortion associated with Inter-video therapy. This is because people with a high video-link use may be accustomed to the eye-contact distortion, and hence, compared to people with a low video-link usage, may be less influenced by it. Indeed they may associate the “no-direct eye-contact” with “eye-contact” because they are aware they are being looked at on the screen (Grayson & Monk, 2003). Accordingly, participants with high video-link usage may not be influenced by the absence of eye-contact, and may indeed experience the direct eye-contact condition as invasive, which in turn could result in more negative evaluations of the therapist. Furthermore, as previously discussed, people who use a video-link more often may be more comfortable with this way of communicating and therefore video-link use may also have a direct

positive effect on the therapeutic relationship. Accordingly, video-link use was included in the study to test if there was an interaction between video-link use and eye-contact, and a direct effect of video-link usage on the therapeutic relationship. Also, considering the potential role of being accustomed to video-link communication it was hypothesised that the potential positive effect of direct eye-contact on the therapeutic relationship (as compared to no eye-contact) would decrease from session 1 to session 2. Likewise it was hypothesised the effect of the potential interaction between eye-contact and video-link use would decrease over time.

In addition to examining the effect of eye-contact on participants' evaluations of the therapeutic processes, this study also addressed Inter-video alliance agreement and Inter-video therapy motivation. The reduction in non-verbal communication associated with Inter-video therapy could impede a therapist's and client's ability to develop reciprocity and thus might decrease alliance agreement as compared to in-person (e.g., Germain et al, 2010). Furthermore, in the direct eye-contact condition, the camera was placed in the middle of the screen (roughly at participant's eyes, see below for more detail), which meant the therapist had less visual information available in this condition. This could potentially make it harder for the therapist to assess her connection with the participant and thus impede alliance agreement. As considered in the Introduction, alliance agreement is important because it is associated with better outcome (Tryon et al., 2007). To analyse alliance agreement, this study included a measure of how the therapist experienced the therapeutic alliance. It was hypothesised that alliance agreement for the Inter-video therapy session would be lower than what is usually found for in-person therapy and that the therapist would rate the alliance lower than the participants.

A measure of Inter-video therapy motivation was included after the sessions were completed to provide an indication of participants' motivation to engage in additional Inter-video therapy sessions. Motivation to complete additional therapy sessions is important for therapy adherence and therefore motivation toward another Inter-video therapy session could be

considered as an outcome measure of successful therapeutic processes. It was hypothesised that those participants who were more motivated had rated the therapeutic relationship more favourable.

Finally, open-ended questions were included after each session to evaluate positive and negative aspects of the participants' Inter-video therapy experience and specifically identify any comment concerning eye-contact experiences.

In summary, the study evaluated how eye-contact influenced two core measures of the therapeutic relationship: alliance and empathy. The main hypothesis was that direct eye-contact from the therapist would be associated with more positive evaluations of the therapeutic relationship than would no therapist eye-contact. However, it was also hypothesised that the effect of eye-contact would be influenced by participants' level of shame and prior video-link usage. The study also investigated alliance agreement and differences in the relationship measures as a function of how motivated participants were to engage in additional Inter-video therapy session.

3.01 Method

Participants

Twenty-one students (7 males), aged 18 to 45 years, were recruited from the University of Canterbury through university email-lists and posters on campus. In return for a \$20 shopping voucher each participant volunteered to take the role of a client in two Inter-video therapy sessions and to evaluate the therapeutic relationship formed⁶. Less than half of the participants (42.9%) were from NZ. Many participants in the study were students at the Human Interface Technology Laboratory at Canterbury University. These students may have had a specific interest in the videoconference technology. Most students at this laboratory are international students,

⁶ Although the study was designed so the two sessions took place one week apart, six students had their second session 6 months later due to the February Earthquake in Christchurch 2011. At that point in time two participants had moved away from the city, thus, only 19 participants completed the study. Preliminary analyses revealed no differences in results between those participants who completed the second session one week after the first session and those who completed the second session some 6 months later. Accordingly the reported results include all participants who completed both testing sessions.

which explains the low number of participants from New Zealand. Nevertheless, over three-quarters (76%) indicated English was their first language. The sample comprised both undergraduate (43%) and postgraduate students from across a range of academic disciplines.

Materials

Client factor questionnaire. This questionnaire assessed participant background and shame levels. A copy of the questionnaire is available in Appendix C.1.

Demographics. Participants indicated their gender, age, and country of origin as well as how long they had studied at Canterbury, what they had or planned to major in and what type of program they were currently enrolled in (e.g., PhD, master's or undergraduate).

Computer proficiency and Inter-video usage. Four statements addressed the participants' computer proficiency (e.g., "I like to download and try new programs for my computer"). Each statement was rated on a 9-point scale from "Never true of me" (1) to "Almost always true of me" (9). As internal consistency was acceptable (Cronbach's $\alpha = .70$), a mean computer proficiency score was computed for each participant, with higher scores indicating more proficiency. The mean across participants was 6.38. In addition, participants indicated, on a 6-point scale, from "Daily" (1) to "Never" (6), the frequency of their video-link usage. About a third (6) of the participants used a video-link on a weekly basis and 7 participants had never used a video-link. For the analysis the variable was categorised into high usage (more than monthly) and low usage (less than monthly, including never), with a total of 9 participants (48%) in the high use group and 10 (52%) in the low use group.

Therapy experience, therapy themes and theme appraisal. Participants indicated whether they had ever seen an e-therapist or an in-person therapist. The questions were rated on a 4-point scale from "Never" (1) to "many times" (4) and categorised into participants with (2-4) and without therapy experience (1). About half of the participants (48%) had prior therapy experience, but none had ever seen an Intervideo therapist. Participants also indicated what topic or theme

they would like to focus on in their therapy session. Most participants chose to talk about issues such as time-management and study habits, stress and study motivation or doubts about career choice. Furthermore, participants were asked to rate: 1) how emotional their theme would be for them; and 2) how hard they thought it would be to talk about it. Each question was answered on a 9-point scale from “Not very important” (1) to “Very important” (9) and “Not very hard” (1) to “Very hard” (9) respectively. Accordingly, scores above 5 were considered as respectively important and hard. The majority considered their chosen topic to be of emotional importance (78.9%), yet the vast majority of participants (94.7%) did not expect it to be hard to talk about.

The Internalised Shame Scale (ISS, Cook, 1994). The ISS was included in this study to provide a measure of shame. The details of the scale are outlined in Study 1. As responses showed high reliability (Cronbach’s alpha = .94) a mean score was calculated for each participant. The mean score across participants was found to be 1.31 ($SD = .59$) on a 0 - 4 range scale (0 = no shame experiences, 4 = almost always experiencing shame) and fell within the norms for a nonclinical population (Cook, 1994).

Session factors questionnaire. This online questionnaire assessed participants’ experience of the video-call session and the therapeutic relationship. A copy of the questionnaire is included in Appendix C.2⁷.

Skype call quality. Participants answered four questions concerning the Skype call quality (e.g., “There was hardly any speech delay”), each answered on a 6-point scale from “No, I strongly feel that it is not true” (1) to “Yes, I strongly feel that it is true” (6). Responses were considered to identify whether any data should be excluded because of poor perceived call quality. The overall evaluations of the quality were very high and did not differ between the experimental conditions and so call quality was not considered further.

⁷ The Therapeutic Bond Scales (Saunders, Howard & Orlinsky, 1989) were included in the questionnaire. They were left out of the final analysis because of issues with internal consistency on some subscales.

The Working Alliance Inventory (WAI; Horvath & Greenberg, 1989). The WAI measures overall working alliance and consists of 12 items loading on an overall score as well as three subscales providing a measure of the emotional bond (e.g., “I believe my therapist likes me”), agreement on goals (e.g., “My therapist and I are working towards mutually agreed upon goals”) and agreement on tasks (e.g., “I believe the way we are working with my problem is correct”). The questions are each answered on a 7-point scale, ranging from “Never” (1) to “Always” (7) and as responses showed good internal consistency for both sessions (Cronbach’s $\alpha = .82$ and $.83$) the items were combined to calculate a mean WAI score for each participants and the mean score across participants was 5.70 ($SD = .64$) for the first session and 5.86 ($SD = .62$) for the second session.

The Empathy Subscale of the Barret-Lennard Relationship Inventory (ES; Barrett-Lennard, 1986). The ES was included to provide a specific measure of empathy. This subscale consists of 16 questions that address empathy experience (e.g., “My therapist wants to understand how I see things”), each answered on a 6-point scale ranging from “No, I strongly feel that it is not true” (1) to “Yes, I strongly feel that it is true” (6). Internal consistency was good for both session 1 and 2 (Cronbach’s α respectively $.87$ and $.83$) and the items were combined into a mean score for each participant. The overall mean was 4.65 ($SD = .60$) for the first session and 4.92 ($SD = .50$) for the second.

Overall session evaluation. One question from the Therapeutic Bond Scales (TBS; Saunders, Howard & Orlinsky, 1989) provided a measure of the overall session evaluation; “How do you feel about the session you have just completed”. The question was rated on a 7-point scale from “very poor” (1) to “perfect” (7) with the mean across participants being for the first and second session respectively 5.11 ($SD = .88$) and 6.00 ($SD = .67$).

Alliance ruptures. To assess alliance ruptures, breaks in the alliance or relationship, a question was included from the Post Session Questionnaire (Muran et al., 2009): “Did you

experience any tension or problem, any misunderstanding, conflict or disagreement in your relationship with your therapist”. This was answered “Yes” or “No” and if the response was positive the participant was asked to describe the rupture and indicate how upsetting it had been to them. There were no alliance ruptures reported in any of the sessions and so this factor was not considered further.

Inter-video therapy motivation. One question addressed participant’s motivation toward additional Inter-video therapy sessions. The question was answered on a 5-point scale (1 = “Intensely: I would want it to be very soon”; 5 = “Very little: I am not sure I would want to come”). The item was categorised into participant with high (1-2), some (3) and low motivation (4-5).⁸.

Open ended questions. At the end of the questionnaire, after the second session, the participants were invited to write any comments about their experience and to list 1-3 positive and negative aspects of their Inter-video therapy experience. Positive and negative themes were identified with a particular interest in comments on the eye-contact experience.

Therapist evaluation questionnaire. The therapist completed this questionnaire after each session. A copy is available in Appendix C.3. The therapist indicated what condition she had used (direct or no eye-contact), rated the call quality and indicated whether anything had gone wrong during the session (e.g., camera fell down). In addition she filled out the WAI (see above) and as internal consistency was high for her responses (Cronbach’s alpha = .95 and .97 for respectively session 1 and 2) items were combined to provide an overall therapist WAI score for each session and the mean score was 5.85 ($SD = .74$) for the first session and 5.97 ($SD = .79$) for the second.

⁸ Similar to Study 2 participants were asked to rate openness to work through a number of different therapy modalities. However, as the focus of the study was on the Inter-video therapy experience, openness to different e-therapy modalities was not considered further.

Video-link set-up. The set-up consisted of a therapist and a participant site that each included a computer equipped with a web-cam, speakers and a microphone. At the therapist site, the normal computer screen had an additional screen in front of it on which the therapist could shift the camera's position depending on the eye-contact condition (see Figure 3.1). The therapist always looked at the same place on the computer screen, the place where the participant was displayed. However, in the direct eye-contact condition the camera was placed on the centre of the screen by the participant's eyes, so that the participant had a perception of having direct eye-contact with the therapist (i.e., the therapist looking at the participant). In the no eye-contact condition the camera was placed above the screen, so the participant perceived the therapist's eye-gaze as if she was looking down (i.e., she was not looking at the participant) (see Figure 3.2).

Figure 3.1

Camera Position for the Two Eye-contact Conditions

Camera position, no eye-contact



Camera position, direct eye-contact



Figure 3.2

Eye-contact Experience for the Two Eye-contact Conditions**Procedure**

The study was reviewed and approved by the University of Canterbury Human Ethics Committee.

At initial contact, participants were screened through a telephone interview by the main researcher to avoid inclusion of people with severe psychological disorders, drug abuse or suicidal thoughts. The screening questions were developed specifically for the study in consultation with the clinical psychologist co-supervisor. The screening included questions such as “have you ever been admitted to hospital due to any major psychological disorder?” and “have you ever had any suicidal thoughts?” (all questions are outlined in Appendix C.4). The participants were provided with information about the study and were asked to select a topic to discuss with the therapist that was related to student life and was of some emotional importance to them. The therapist was a third year clinical psychology student. She was instructed to primarily focus on creating good rapport with the participants and to help them feel comfortable with the

video-call experience. She provided participants with advice and support concerning their student related issues⁹. For more detail about the session content and structure see Appendix C.5.

The therapist provided 3-5 sessions each day. She alternated between the eye-contact conditions after every two sessions and participants were initially randomly allocated (using <http://.randomizer.org/form.htm>) to their time slot and related condition. However, because of the participants other commitments (exams, class and work) some of them had to change the initial appointment. The conditions were not counterbalanced, if a participant was assign to the direct eye-contact condition the participant received direct eye-contact in both session 1 and 2.

Each participant was asked to complete the online client factor questionnaire at his or her convenience prior to the first therapy session. This questionnaire took 15-20 minutes to complete. Upon arrival at the laboratory, the participant was greeted by the experimenter and seated in front of a computer with a video-link setup (see above). Together the experimenter and the participant sent a chat-message to the therapist indicating they were ready; in return the therapist called and the experimenter answered the call, turned on the video, entered the full screen setting and left the room. The therapy session lasted for 45 minutes, after which the experimenter took the participant to another room to complete the online session factor questionnaire. The second therapy session followed the same procedure as the first. After the second session had ended and participants had finished the session factor questionnaire, they were debriefed, thanked for their participation, and paid.

3.02 Results

In the first part of the result section, means of the relationship measures are presented as a function of conditions along with preliminary analysis of differences in the experimental group. Then ANOVAs are performed to evaluate the effect of eye-contact and shame as well as eye-contact and video-link use on the therapeutic relationship. Hereafter, alliance agreement and

⁹ The therapist was offered debriefing and supervision with a clinical psychologist.

future Inter-video therapy motivation is analysed, followed by consideration of the open ended questions.

Eye-contact and the Therapeutic Relationship

Preliminary t-tests showed no statistically significant difference in computer/internet proficiency for participants in the two conditions and no difference in gender, shame, video-link use, ratings of the therapeutic topics or therapy experience. These findings indicated that other differences (e.g. empathy rating) between conditions cannot be attributed to differences in these variables.

As presented in Table 3.1 there were only small differences in the relationship measures as a function of eye-contact, although the relationship was generally rated slightly higher in the direct eye-contact than the no eye-contact condition. Also, there was a small increase in empathy scores from the first to the second session.

Table 3.1

Mean Score and Standard Deviation for Empathy (ES) and Working Alliance (WAI) as a Function of Experimental Condition and Session (1 and 2).

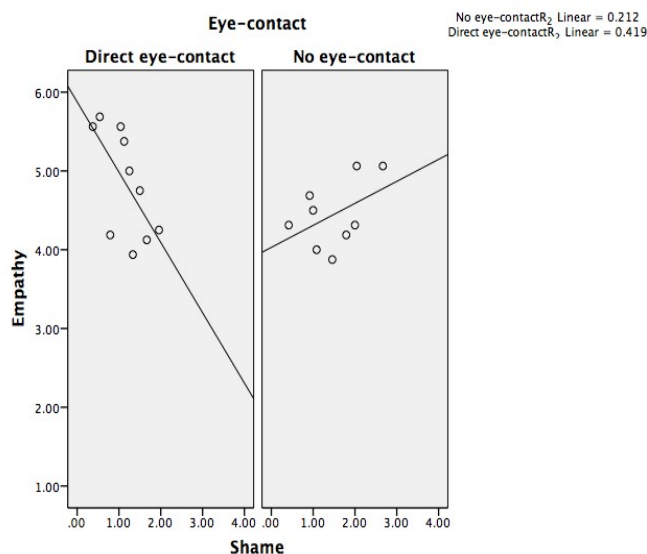
	Range	Direct eye-contact	No eye-contact
Empathy 1	1-6	4.84 (0.68)	4.44 (0.43)
Empathy 2		5.11 (0.47)	4.71 (0.49)
Working alliance 1	1-7	5.73 (0.84)	5.66 (0.35)
Working alliance 2		6.06 (0.65)	5.64 (0.53)

Effect of eye-contact and shame. To test if there was an effect of eye-contact and shame on the therapeutic relationship measures, two mixed ANOVAs were performed with eye-contact (direct/no-direct) and shame (ISS) as the independent variables and respectively the empathy (ES) and alliance (WAI) as repeated dependent variables (Time: session1/ session2).

Empathy. There was no statistically significant main effect of time, $F(1,15) = .05, p = .831, \eta_p^2 = .003$, or shame, $F(1,15) = 1.74, p = .207, \eta_p^2 = .104$. Also there was no statistically significant interaction effects between time and eye-contact, $F(1,15) = 1.01, p = .330, \eta_p^2 = .063$, or time and shame, $F(1,15) = .653, p = .432, \eta_p^2 = .042$, or time, eye-contact and shame, $F(1,15) = 1.37, p = .260, \eta_p^2 = .084$. However, there were a statistically significant main effect of eye-contact, $F(1,15) = 11.25, p = .004, \eta_p^2 = .429$, indicating that, on average, participants rated empathy higher in the direct eye-contact condition as compared to the no eye-contact condition. However, this effect was qualified by a significant interaction effect between eye-contact and shame $F(1,15) = 7.71, p = .014, \eta_p^2 = .339$. Further analysis showed there was a positive relationship between ISS and ES in the no eye-contact condition, $r(7) = .460, p = .213$, and a significant negative relationship in the direct eye-contact condition, $(r(8) = -.647, p = .043)$. The interaction effect between shame and empathy is illustrated in Figure 3.3.

Figure 3.3

Scatter Plots with Fitted Line of the Interaction Effect Between Eye-Relationship between Shame on Empathy (for the First Session)



Alliance. There was no statistically significant main effect of time, $F(1,15) = .07, p = .796, \eta_p^2 = .005$, eye-contact, $F(1,15) = 3.81, p = .070, \eta_p^2 = .202$, or shame, $F(1,15) = 1.08, p = .316, \eta_p^2 = .067$. Also there was no statistically significant interaction effects between eye-contact and shame, $F(1,15) = 3.19, p = .094, \eta_p^2 = .175$, time and eye-contact, $F(1,15) = .13, p = .720, \eta_p^2 = .009$, or time and shame, $F(1,15) = .071, p = .794, \eta_p^2 = .005$, or time, eye-contact and shame, $F(1,15) = .05, p = .825, \eta_p^2 = .003$. Although the interaction effect eye-contact and shame was not significant, the patterns of correlations was similar to those found for empathy ($r(7) = .340, p = .371$ for direct eye-contact, and $r(8) = -.417, p = .231$ for no eye-contact).

Effect of eye-contact and video-link use. To test if there was an effect of eye-contact and video-link use on the therapeutic relationship measures (ES and WAI), two mixed ANOVAs were performed with eye-contact (direct/no-direct) and video-link use (high/low) as the independent variables and empathy (ES) and alliance (WAI) as repeated dependent variables (Time: session1/ session2).

Empathy. There was no statistically significant main effect of eye-contact, $F(1,15) = 2.60, p = .128, \eta_p^2 = .147$. Also there was no statistically significant interaction effects between eye-contact and video-link use, $F(1,15) = 1.72, p = .210, \eta_p^2 = .103$, time and eye-contact, $F(1,15) < .001, p = .991, \eta_p^2 < .001$, or time and video-link use, $F(1,15) = .020, p = .661, \eta_p^2 = .013$, or time, eye-contact and video-link use, $F(1,15) = 3.72, p = .073, \eta_p^2 = .199$. However, there was a statistically significant main effect of time, $F(1,15) = 7.36, p = .016, \eta_p^2 = .329$, indicating an increase in ratings of empathy from session 1 ($M = 4.65, SD = .60$) to session 2 ($M = 4.92, SD = .50$). Furthermore, there was a statistically significant effect of video-link use, $F(1,15) = 6.60, p = .021, \eta_p^2 = .306$, indicating that participants with a high video-link usage rated empathy higher than participants with low video-link usage ($M = 5.00, SD = .13$ vs. $M = 4.53, SD = .12$).

Alliance. There was no statistically significant main effect of eye-contact, $F(1,15) = 0.20$, $p = .665$, $\eta_p^2 = .013$ or time, $F(1,15) = 2.01$, $p = .177$, $\eta_p^2 = .118$. Also there was no statistically significant interaction effects between eye-contact and video-link use, $F(1,15) = 1.38$, $p = .258$, $\eta_p^2 = .084$, time and eye-contact, $F(1,15) = 3.37$, $p = .086$, $\eta_p^2 = .0183$, or time and video-link use, $F(1,15) = 2.36$, $p = .145$, $\eta_p^2 = .136$, or time, eye-contact and shame, $F(1,15) = 0.58$, $p = .458$, $\eta_p^2 = .037$. However, there was a statistically significant main effect of video-link use, $F(1,15) = 6.98$, $p = .019$, $\eta_p^2 = .317$, indicating that participants with a high video-link usage rated alliance higher than participants with low video-link usage ($M = 6.06$, $SD = 0.18$ vs. $M = 5.45$, $SD = 0.17$).

Alliance Agreement

The overall means of the therapist's working alliance ratings were with 95% certainty in the same range as that of the participants¹⁰; for the direct eye-contact condition it was 5.88 ($SD = 0.79$) and 6.00 ($SD = 0.73$), respectively, for session 1 and 2 and, for the no eye-contact conditions it was 5.81 ($SD = 0.73$) and 5.97 ($SD = 0.90$). Furthermore, preliminary paired t-tests indicated no significant differences in therapist alliance ratings between the eye-contact conditions or session times. Intraclass correlations (ICC) of total WAI scores were used to evaluate how strongly the therapist and the participant ratings of the relationship resembled each other. The ICC for the two experimental conditions at the first and second session are presented in Table 3.2. The correlations are in the low to moderate range and not statistically significant.

¹⁰ Direct comparison was not possible, because the therapist WAI ratings do not qualify as independent observations.

Table 3.2

Intraclass Correlations Between the Therapist and the Participants Alliance Scores as a Function of Eye-contact (direct/no direct eye-contact) and Session (1 and 2).

	Direct eye-contact (<i>n</i> = 10)	No eye-contact (<i>n</i> = 9)
Session 1	$r = .408, p = .106$	$r = .363, p = .151$
Session 2	$r = .421, p = .098$	$r = .200, p = .290$

Inter-video Therapy Motivation

Table 3.3 presents number of participants after the second session with respectively high, some, and low motivation toward another Inter-video therapy session.

Table 3.3.

*Number of participant (*n*) with respectively High, Some and Low motivation after the Second and Final Session as a Function of Eye-contact (Direct/No direct)*

Session 2	No direct Eye-contact <i>n</i>	Direct Eye-contact <i>n</i>	Total <i>N</i>
High motivation	3	4	7
Some motivation	6	6	12
Low motivation	0	0	0

Preliminary exploration indicated participants with high motivation did rate the relationship measures slightly higher than participants with some. To test if there was an effect of the therapeutic relationship on motivation, two *t*-tests were performed with motivation as the independent variable (High/Some) and, respectively, empathy and alliance as dependent

measures. The tests indicated there was no statistically significant difference between participants with high and with some motivation with respect to empathy, $t(1,17) = -.064, p = .950$, or alliance, $t(1,17) = 1.35, p = .157$.

Open-ended Questions

Participants made a total of 48 positive statements and 39 negative statements related to their Inter-video therapy experience or more generally their thoughts on Inter-video therapy. A total of 12 (63%) participants noted positive aspects related to convenience (e.g., “no travel time”, “don’t need to meet up at a specific place”) and a total of 11 (58 %) noted feeling more comfortable with the Inter-video modality as compared to in-person (e.g., “seemed to make it easier to talk about emotions”, “I felt slightly less awkward”, “more comfortable to talk openly”). A total of 11 participants (57.9%) noted it was less personal and/or noted a concern related to decreased available body language (e.g., “maybe lose meaning from body language”, “the interaction is less personal”) and 8 participants (42.1%) noted potential or actual technical issues as a negative aspect (e.g., “some delay awkward at times”).

Only three participants (15,8%) commented on the eye-contact contact experience. These were in the no eye-contact condition and were made by participants with no prior use of a video-link who struggled with the lack of eye-contact (e.g., “Lack of eye contact due to camera placement took some getting used to” and “With both sessions I felt like it was difficult to make eye contact with the therapist, it felt like she was looking down instead of straight into my eyes”).

3.03 Discussion

The main focus of this study was on the effect of eye-contact on the therapeutic relationship. Although only three participants commented on eye-contact, the comments were consistent with the hypothesis that an absence of eye-contact would have a negative influence on people’s Inter-video therapy experience; especially if they have no prior experience with a video-link. Also, the statistical analyses did indicate therapist eye-contact had an effect on the

relationship, but as hypothesised, this effect was moderated by participants' shame levels. As predicted, for those participants who were more prone to shame, being exposed to a therapist who consistently provided the experience of direct eye-contact had a negative influence on their experience of the therapists ability to understand them and relate to them. Furthermore, for shame-prone participants receiving no direct eye-contact appeared to have a positive influence on how empathic the therapist come across. This finding supports the hypothesis that the distorted eye-contact associated with video-link communication may be beneficial to clients who struggle with shame, and indicates that less eye-contact, for some clients, may facilitate rather than encumber Inter-video therapeutic processes. Future research may evaluate whether this is also true for clients who present with topics they consider embarrassing (e.g., bulimia, paraphilia). Importantly, when controlling for shame, more rather than less eye-contact may have a positive effect on clients perception of therapist conveyed empathy. This finding indicates that more direct eye-contact can be beneficial and that Inter-video therapist may need to adjust eye-contact style according to their client.

Although the results suggested that eye-contact had no significant effect on the alliance, it is relevant that there was a similar pattern, although less pronounced between shame and alliance with respect to the eye-contact conditions. As discussed in the introduction eye-contact may primarily influence the emotional engagement, the "felt" meaning, between a therapist and a client and the measure of empathy assesses this engagement (e.g., Barrett-Lennard, 1986; Fullwood, 2007; Grayson & Monk, 2003; Nguyen & Canny, 2007; 2009). In contrast, although the WAI does assess the emotional connection (bond dimension), this inventory also assesses goal and task agreement. For this reason, the Working Alliance Inventory may not be as sensitive to small variations in the emotional engagement as the empathy measure, and this may explain why there were no statistically significant differences between the eye-contact conditions with regard to alliance. Importantly, the non-significant findings may also be due to the small sample size.

As hypothesised, participants who were more familiar with communicating through a video-link experienced the therapeutic relationship more favourably, indicating that prior use of a video-link may make initial Inter-video therapy engagement easier. Noteworthy, this effect of technology on therapeutic processes may reflect that the employed measure of technology was very specifically related to behavioural experience with the modality. Broader measures of technology competency may not have the same degree of influence, which may explain why other studies did not find a direct effect of technology on the therapist-client alliance (e.g., Bouchard et al., 2000, 2004; Carey et al., 2008). In contrast with the hypothesis, there was statistically significant effect, indicating that participants who were more accustomed to a video-link responded differently to the eye-contact conditions. The investigation of this hypothesis was, however, problematic, due to low participant numbers in some cells ($n = 3$).

On average, participants rated the session as “very good” and evaluated empathy and alliance in the high end of the scale. The alliance rating was in a range similar to that found by Busseri and Tylor (2003) for in-person therapy, and is consistent with the research reviewed in the introduction that indicates that clients have positive experiences of the Inter-video therapeutic processes (e.g., Bouchard et al., 2000; 2004, Caray, Wade, and Wolfe, 2008; Day and Scheider, 2002; Morgan, Patrick, & Magaletta, 2008; Simpson & Reid, 2014; Simpson et al., 2015). Also, consistent with prior research (e.g., Simpson et al., 2005) a majority of participants noted that their Inter-video therapy experience was easier or more comfortable (it was assumed the participants made comparison to in-person therapy). It is noteworthy that, although it was a student rather than a clinical sample, and the participants did not, on average, consider their topic hard to discuss, they still made such comments. However, it is also possible the participants found the Inter-video therapy session easier exactly because the therapy topic was not difficult to discuss. Furthermore, consistent with Germain et al (2010) study on alliance development, ratings of the session variables predominantly increased from the first to the second session, and when

controlling for video-link use, there was an increase in empathy ratings from session one to session two. This finding may indicate an adjustment to the Inter-video modality and/or a positive development in therapeutic processes.

The absence of direct tension, misunderstandings, or conflict in the Inter-video therapy session indicated there was no alliance rupture associated with the Inter-video therapy sessions. This is encouraging, as misunderstanding might have been expected given the decrease in available non-verbal communication cues. Importantly, the finding may be related to the limited number of sessions, as it may be difficult to detect alliance ruptures before a sound and stable alliance has been established (Safran, Muran, & Eubanks-Carter, 2011). However, it is also important to bear in mind the participants did not rate the topic as difficult to talk about, and this may also explain why there was no tension or conflict.

The therapist and participant concurrence on the Working Alliance Inventory measure was in the low to moderate range, which is comparable to results from in-person therapy. For example, in a meta-analytic examination of alliance agreement Tryon et al. (2007) found therapists and clients alliance ratings were moderately correlated ($r = .36$). This commonality between correlations indicates, in contrast to the hypothesis, similarity in alliance agreement between Inter-video and in-person therapy. Also in contrast to the hypothesis and the study by Germain et al. (2010), therapist and client ratings were similar, suggesting the therapist in this study did not have a more negative experience of the encounter than did the participants. Furthermore, the concurrence was similar between the experimental groups suggesting the placement of the camera on the screen (direct eye-contact condition), which covered parts of the participants' face, did not interfere with alliance agreement. This finding may indicate that it is not so much the ability to actually see a client's face which influence alliance agreement, and that other cues may be central such as tone of voice, pauses in the conversation and choice of words.

Regardless of condition and session all participants showed some degree of motivation toward an additional Inter-video therapy session. This is consistent with the positive evaluations of the session variables. Given the general hesitation toward Inter-video therapy found in Study 1, this may indicate participants developed a more positive perception of Inter-video therapy after they had experienced it. However, it is also possible that the participants in this study, who had chosen to take part in an actual Inter-video therapy session, already had a more positive approach to Inter-video therapy compared to participants in Study 1 who merely filled out a survey on the topic. More motivated participants (“high motivation” compared to “some motivation”) rated the relationship measures higher, but the differences were small and not significant, which possibly reflects that participants all showed a degree of motivation toward further therapy sessions. This could be related to the high number of international students recruited from the Human Interface Technology Laboratory at Canterbury University.

The study had a number of limitations. First, the number of participants was low, which caused a lack of statistical power. Second, the camera manipulation creating the two different eye-contact experiences also resulted in a view difference; the therapist was seen more from above in the no eye-contact condition as compared to the direct eye-contact condition. Furthermore, as considered above, in the direct eye-contact condition, the camera obscured the view of the participants. Thus, although not likely when considering the results and interactions, it cannot be ruled out that the differences found between the experimental conditions were not only caused by the manipulation of therapist eye-contact but also by the difference in view (in the no eye-contact condition the therapist was viewed more from above). Third, the experimental design in this study contained just two extreme eye-contact conditions; no eye-contact and consistent direct eye-contact. However, in normal conversations, eye-contact varies and even in video-link conversations it is possible that people, especially high video-link users, would from

time to time look into the camera to purposefully provide some eye-contact. Accordingly an additional mixed eye-contact condition was included in a Study 4.

Study 4: Evaluating Connections between Therapy Expectations, Eye-contact, Session Experience and Therapy outcome

As discussed in the Introduction, expectations and the therapeutic relationship are important common therapeutic factors and decades of in-person therapy research indicate both have a substantial effect on therapy outcome (e.g., Bohart & Tallman, 2010; Greenberg et al., 2006, Norcross, 2010). However, only a few e-therapy studies have investigated the relationship between these two common factors and how they influence therapy outcome (for relevant reviews see for example Cavanagh & Millings, 2013; Richards & Vigano; Socala et al., 2012). Furthermore, just one Inter-video therapy study, as know to the author of this thesis, provides quantitative data on the relationship between alliance and outcome (Yuen et al., 2013). It is therefore relevant to further investigate which therapy processes influence Inter-video therapy outcome.

This current study had two objectives. The first objective was to follow up on Study 3 by evaluating to what degree the results could be reproduced. Furthermore, the scope of Study was expanded, by including a third eye-contact condition and a measure of the session experience, which went beyond the therapeutic relationship. The second objective was to evaluate the relationship between expectations, the therapeutic relationship, and therapy outcome. Importantly, this objective integrated central aspects of the three previously presented studies; specifically, the study included the expectation measure from Study 1 (Inter-video therapy expectations) and from Study 2 (therapist expectations) as well as the relationship measures from Study 3. The current study also included different outcome measures.

For the first objective, a number of hypotheses were made based partly on the results from Study 3. In the third eye-contact condition, participants received mixed eye-contact from the therapist. This condition was anticipated to represent a more naturalistic eye-contact experience more similar to in-person eye-contact which is usually characterised by a mix of eye-contact

connection and disconnection (e.g., Dowell & Berman, 2013; Kleinke, 1986; Sharpley & Sagris, 1995). Thus, it was predicted participants would rate empathy, working alliance and session evaluation more positively in the mixed eye-contact condition as compared to the direct and no eye-contact conditions. Also, consistent with Study 3, it was assumed that ratings would on average be higher in the direct eye-contact condition as compared to the no eye-contact condition. Furthermore, it was predicted that the interaction between eye-contact and shame would be reproduced, and consequently, that results would, for the no eye-contact condition, show a positive relationship between levels of shame and session experience (as reflected in the measures of empathy, alliance and session evaluation). The inverse was anticipated in the direct eye-contact condition, whereas no specific hypothesis was made for the mixed eye-contact condition, although it was speculated that there might not be a correlation between shame and empathy in this condition.

Also, similar to Study 3, a main effect of video-link use was anticipated, indicating that participants who used a video-link more often rated their session experience more positively. Alliance agreement was hypothesised to be comparable to Study 3, that is, in the moderate range and similar across the eye-contact conditions. Participants were expected to show at least some motivation toward additional Inter-video therapy sessions and no differences in the session experience measures, as a function of motivation, were predicted.

For the second objective, regarding the relationship between expectations, session measures and outcome, hypotheses were based predominantly on in-person therapy, in particular, research indicating a positive effect of more optimistic therapy expectations on therapeutic processes and outcome (Bohart and Tallman, 2010; Greenberg et al., 2006), and consistent findings of a positive effect of alliance and empathy on therapy outcome (Elliot et al., 2011; Horvath et al., 2011).

With regard to the outcome measures, it was hypothesised that the Inter-video therapy session would have a positive effect on participants' study habits, and that their outcome anticipations would have a direct effect on how beneficial the session was to them. Specifically, participants who expected the session to be beneficial were hypothesised to gain more from the intervention. Furthermore, it was hypothesised that more positive therapist and Inter-video therapy expectations would be associated with a more positive experience of the session with respect to empathy, alliance and session evaluation. Likewise it was predicted that these expectation measures would be positively associated with the outcome measures. Finally, evaluation of the session and the measures of the therapeutic relationship were anticipated to have a positive effect on the outcome measures.

It was assumed that there would be no differences between the eye-contact conditions because, although the session experiences might vary according to the eye-contact condition, the relationship between expectations, session experience and outcome within each condition was predicted to be similar. Nevertheless, because the study design included the experimental eye-contact conditions, it was necessary to perform preliminary analyses to determine whether it was acceptable to report results for the total sample rather than for each eye-contact condition. This is detailed further in the result section.

In summary, this study followed up on and extended the previous eye-contact study by including a third mixed eye-contact condition and a measure of session evaluation. Furthermore, the study included the expectation measures from Studies 1 and 2, hereby creating an opportunity to evaluate the influence of Inter-video therapy and therapist expectations on the session variables and outcome. Finally, the study examined the relationship between the session variable and outcome.

4.01 Method

Participants

A total of 49 (15 male) University of Canterbury students (aged between 17 and 51 years; $M = 22.14$, $SD = 7.72$) recruited through the introductory psychology participant pool as well as through recruitment posters on campus volunteered to take part in the study in return for either course credit or an NZ\$10 voucher. Most participants (84%) identified themselves as New Zealand European with English as their first language (90%). Most (69%) were in their first 2 years of study at the University of Canterbury.

Materials

Video-link set-up. The video set-up was identical to that used in Study 3, with the addition of a mixed eye-contact condition. In this additional condition the therapist varied her eye-contact so she would predominantly look into the camera (direct eye-contact) when she was speaking and predominantly look at the participant on the screen when the participant was speaking (no eye-contact).

Planning sheet. A planning sheet was provided as part of the intervention. This sheet was essentially a diary with columns for each day, that allowed the participant to schedule study times and systematically evaluate whether they managed to study during the time they had put aside and how satisfied they were with their efforts (for more detail see Appendix D.1).

Client factors questionnaire. This questionnaire concerned participant characteristics, expectations and time-management skills. A copy of the questionnaire is included in Appendix D.2.

Demographics. Participants entered their gender, age, and ethnic group. In addition, they indicated whether English was their first language and how long they had studied at the University of Canterbury.

Video-link usage. Participants indicated how often they had used Skype or similar software on a 6-point scale ranging from “A few times a week” (1) to “Never” (6). For the analysis participants were, as in the previous studies, categorised into a high use group (more than monthly; $n = 20$) and a low use group (less than monthly; $n = 29$). In the high use group only 4 participants (20%) used a video-link weekly and in the low use group only 2 participants had never used a video-link (7%).

Therapy experience and expectations. Participants answered whether they had ever seen a therapist or counsellor before on a 4-point scale from “Yes, many times” (1) to “No, never” (4). For analysis, participants were then categorized into those with ($n = 24$) and without ($n = 25$) prior therapy experience. Similar to Study 1, participants answered four questions regarding expectations toward inter-video therapy (e.g., “I would enjoy it”, “I would find it somewhat hard”). Each question was answered on a 5-point scale from “Strongly disagree” (1) to “Strongly agree” (5). Internal consistency across the 4 items was high (Cronbach’s $\alpha = .82$), and mean scores were computed providing an expectation measure for Inter-video therapy ($M = 2.65$, $SD = .64$) with higher scores indicating more positive expectations¹¹.

The therapist expectation measure was identical to that used in Study 2. Participants were presented with a picture of, and a brief introduction to, their therapist and answered 10 questions regarding her expertness, trustworthiness and attractiveness (for more detail see Study 2). Each question was answered on a 6-point scale (1 = “Strongly disagree”; 6 = “Strongly agree”). Internal consistency across the items was high (Cronbach’s $\alpha = .82$), and a mean score was computed for each participant, with higher scores indicating more positive expectations ($M = 4.75$, $SD = .48$).

¹¹ Similar to Study 1, participants also rated expectations toward in-person therapy and provided an appraisal of video-link use. The effect of these variables on Inter-video expectations was not the focus of this study, but analysis showed they were similar to Study 1.

The Internalised Shame Scale (ISS; Cook, 1994). The ISS scale was included to provide a measure of participants' shame levels. Further details on the scale are outlined in Study 1. As a consequence of a procedural error, the ISS was not included in the pre-therapy survey pack. Accordingly participants were contacted after the study and asked to complete the scale. Thirty-nine (80%) of the participants completed the ISS. Completion was within a period of 2 months of completing the study, which is within the identified period of stability of responses (Cook, 1994). Responses showed high internal consistency (Cronbach's $\alpha = .94$) so a mean score was calculated for each participant with 0 indicating never having any experiences of shame and 4 indicating almost always having experiences of shame. The mean score across participants was 1.26 ($SD = .68$), which is consistent with expectations for a student population (Cook, 1994).

Anticipated outcome. One question addressed anticipated Inter-video therapy outcome. Similar to Study 1 the question was answered on a 6-point scale from "Very unlikely" (1) to "Very likely" (6) and, for analysis, it was re-categorised into "Unlikely" (1-2), "Somewhat likely/unlikely" (3-4) and "Likely" (5-6).

Time-management. Participants completed 6 questions concerning study habits and time-management (e.g., "I find it easy to manage my study time", "I am well prepared for my lectures and labs"). The questions were answered on a 6-point scale (1= "Strongly Disagree"; 6 = "Strongly Agree"). After reverse scoring of appropriate questions, internal consistency was high (Cronbach's $\alpha = .87$) and so a mean score was computed for each participant, with higher scores indicating better time management skills. The combined time-management mean score was around the midpoint ($M = 3.56$, $SD = 1.02$) indicating that the participants on average regarded themselves as somewhat able to manage their time.

Session factor questionnaire. This questionnaire concerned factors related to the Intervideo therapy session. A copy of the full questionnaire is included in Appendix D.3.

Empathy subscale of the Barret-Lennard Relationship Inventory (ES, Barrett -Lennard, 1986). The short version of the subscale was used in this study¹². Participants answered ten items (e.g., “The therapist did not understand me”), each answered on a 6-point scale (1 = “No, I strongly feel that it is not true”; 6 = “Yes, I strongly feel that it is true”). Internal consistency was high (Cronbach’s alpha = .88) and thus a mean score was computed for each participant with higher scores indicating higher levels of empathy ($M = 4.86$, $SD = .62$).

The Working Alliance Inventory (WAI; Horvath & Greenberg, 1989). The full description of the inventory is outlined in Study 3. Internal consistency across the 12 items was high (Cronbach’s alpha = .91) and a mean score was computed (possible range = 1 to 7), with higher scores indicating higher perceived alliance ($M = 5.78$, $SD = .77$).

Session Evaluation Questionnaire (SEQ, Stiles, 1980; Stiles et al., 1994). The measure consists of 21 items, each rated on a 7-point scale. One item addresses the overall session experience (1 = “Bad”; 7 = “Good”) while ten items address the session itself with five items related to level of depth, a measure of how powerful and effective a session was evaluated as (e.g., from 1 = “worthless” to 7 = “valuable”) and five items related to level of smoothness, a measure of how relaxed and comfortable a session was considered to be (e.g., from 1 = “unpleasant” to 7 = “pleasant”)¹³. Internal consistency for these 11 items was high (Cronbach’s alpha = .87) and, to reduce the quantity of analyses in the results section, a single score was computed for overall session evaluation (SE), with higher scores indicating more positive session evaluation ($M = 5.34$, $SD = .74$).

Inter-video therapy motivation. Participants were asked to what extent they would want to take part in another session if that was possible. The question was answered on a 5-point scale

¹² This shorter scale was developed for “survey-like” studies and although reliability may be slightly lower it is satisfactory (Barrett-Lennard, 2003)

¹³ The final ten items address participants’ post-session mood and load on the sub-scales “Positivity” and “Arousal”. These items are not included in the analysis as the research question concerned the participants’ experience of the session rather than how the session influenced their mood.

(1 = “Intensely: I would want it to be very soon”; 5 = “Very little: I am not sure I would want to come”). The item was categorised into participants with high motivation (1-2), some motivation (3) and low motivation (4-5). In the middle category there was a total of 23 participants while there was 13 in both the high and low category.

Open-ended questions. Finally, participants were invited to list positive and negative aspects of the video-therapy based on their experience in this study. These were analysed to identify any potential comments on the eye-contact experience.

Therapist evaluation questionnaire. This questionnaire concerned the therapist experience of the session (the questionnaire is included in Appendix D.4).

After each session, the therapist filled out the WAI to indicate her experience of the working alliance. Internal consistency was high (Cronbach’s $\alpha = .91$) and a mean score was computed for each participant; higher scores indicating higher perceived alliance ($M = 5.82$, $SD = .59$). The therapist also noted anything problematic (e.g., loss of connection) and indicated which eye-gaze condition she had used. There were no participants who experienced any serious technical problems, although most had minor sound delays at times or brief miss-matches of the visual image and the sound.

Outcome questionnaire. This questionnaire concerned session outcome (the questionnaire is included in Appendix D.5).

Change in time-management. Participants answered the same 6 questions about study habits and time-management, that they had filled out pre-session. After negative phrased items were reversed, internal consistency was calculated (Cronbach’s $\alpha = .86$), and a mean score was computed for each participant ($M = 3.03$, $SD = .97$). To assess the effect of the therapy session on time-management a repeated ANOVA was performed (see result section for more detail)

Intervention experience. Participants answered six questions concerning their use and perception of the behavioural intervention (e.g., “I used the planning sheet to schedule my study times”, “I thought the planning sheet was helpful”). Each question was answered on a 6-point scale (1 = “Strongly Disagree”; 6 = “Strongly Agree”). Internal consistency was high (Cronbach’s $\alpha = .81$), and a mean score was computed across the questions to provide a measure of participants intervention experience, with higher scores indicating a more positive experience ($M = 4.56$, $SD = .78$).

Improvement experience. An additional 6 questions addressed the participants own improvement experience (e.g., “I have been more successful in making time to study”, “I have felt better prepared than usual”). Each item was answered on a 6-point scale (1 = “Strongly Disagree”; 6 = “Strongly Agree”). Internal consistency was high (Cronbach’s $\alpha = .83$), and a mean score across the items was computed for each participant, with higher scores indicating participants experiencing greater improvement in their time-management skills ($M = 4.35$, $SD = .72$).

Open-ended questions. A final open-ended question allowed participants to write any comments about the Inter-video experience or the study in general. These questions were evaluated with a focus on the eye-contact experience.

Procedure

This study was reviewed and approved by the University of Canterbury Human Ethics Committee.

Upon arrival at the laboratory the participant was greeted by the experimenter, randomly allocated to one of the experimental conditions (using <http://www.randomizer.org/form.htm>), provided with a participant number and shown into a room to fill out the online pre-therapy questionnaire. The participant was then directed into a second room with the video-link set-up. The experimenter sent an instant message to the

therapist to indicate that they were ready and made the video-call as soon as the therapist confirmed she too was ready. When connection was made the experimenter turned on the camera, entered full screen mode and left the room. The therapist was a master's student in the Psychology Department with a previous degree in clinical social work who had over ten years experience in social work practice, counselling and teaching. The therapist's main task was to create a positive therapeutic relationship. Each session had a specific structure. First the therapist enquired about what the participant was studying, what had made them take part in this research study and what they thought might keep them from being organized and well-prepared. Second, the therapist normalized whatever the participant was struggling with and talked about general challenges of being a student. Finally, she suggested exercises and techniques appropriate to the topic discussed in order to improve study habits and time-management (e.g., make study appointments with others, study in the library, schedule study time and study breaks, minimize distractions etc.). Finally, she introduced the participant to the planning sheet explained how to use it and encouraged him or her to do so over the course of the following week.

After the therapy session the participant was provided with a copy of the planning sheet for his/her own use and taken into a third room to complete the post-therapy questionnaire. When the participant returned a week later he or she was again greeted by the experimenter and shown into a quiet room to complete the follow-up questionnaire. The participant then dropped off his or her planning sheet, was debriefed, reimbursed with \$10 and thanked for participating. The overall participation time was 60 minutes plus the time spent on the planning sheet.

4.02 Results

First, means and standard deviations of the session measures (ES, WAI, SE) are presented as a function of the eye-contact conditions together with preliminary analysis of differences in the experimental group. MANOVAs are then performed to evaluate: 1) the effect of eye-contact and

shame, and 2) eye-contact and video-link use on the therapeutic relationship (ES and WAI) and evaluation of the session (SE). Alliance agreement and future Inter-video therapy motivation are then analysed followed by a presentation of the outcome measures and analysis of how well anticipated outcome predicted variation in the outcome measures. Then, correlations between expectations and respectively the session variables and the outcome measures are analysed. Finally, correlations between the session and outcome measures are evaluated.

Eye-contact and Session Experience

Preliminary ANOVAs indicated no statistically significant difference between the three eye-contact conditions with respect to participant age, gender, time-management and study abilities, or any differences with respect to anticipated outcome, Inter-video and therapist expectations. Accordingly any differences between eye-contact conditions cannot be attributed to pre-existing differences in these factors.

As seen in Table 4.1, there were only small differences in the means of the session outcome measures between the three eye-contact conditions.

Table 4.1

Mean Score and Standard Deviations of the Session Measures (Empathy, Alliance and Session Evaluation) as a Function of the Experimental Eye-Contact Conditions

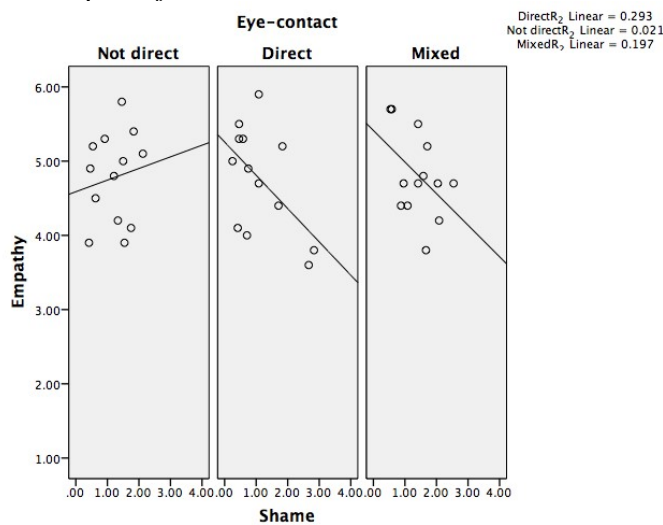
	Range	Direct eye-contact (N = 16)	No-direct eye-contact (N = 16)	Mixed eye-contact (N = 17)
Empathy	1-6	4.73 (0.65)	4.92 (0.65)	4.92 (0.58)
Working alliance	1-7	5.73 (0.66)	5.93 (0.76)	5.70 (0.90)
Session evaluation	1-7	5.41 (0.77)	5.29 (0.83)	5.32 (0.64)

Effect of eye-contact and shame. Initial correlation analysis were performed to evaluate whether the direction of the relationship between shame and empathy as a function of eye-contact, in this current study, was similar to Study 3. Figure 4.1 shows that the direction was similar to

Study 3, indicating the relationship between empathy and shame was not statistically significant, but positive in the no direct eye-contact condition ($r(11) = .146, p = .655$), and medium or strong but negative in the direct ($r(11) = -.541, p = .056, N = 13$) and mixed ($r(11) = -.444, p = .128, N = 13$) eye-contact conditions.

Figure 4.1

Scatter plot of the correlation between Shame and Empathy as a function of eye-contact



To further test if there was an effect of eye-contact and shame on the therapeutic relationship and session evaluation, a MANOVA was performed with eye-contact (direct/no-direct/mixed) and shame (ISS) as the independent variables and empathy (ES), alliance (WAI) and session evaluation (SE) as the dependent variables. There was no statistically significant main effect of eye-contact, Wilks' Lambda = .822, $F(6,62) = 1.07, p = .379, \eta_p^2 = .093$, or shame, Wilks' Lambda = .845, $F(3,31) = 1.91, p = .149, \eta_p^2 = .156$, and no statistically significant interaction effect, Wilks' Lambda = .743, $F(6,62) = 1.65, p = .146, \eta_p^2 = .135$.

Effect of eye-contact and video-link use. Initial consideration of means indicated that, in contrast to study 3, participants with a high video-link use did not appear to have more favourable ratings of empathy ($M = 4.81, SD = .58$ for high users and $M = 4.89, SD = .65$ for low users) or alliance ($M = 5.73, SD = .75$ for high users and $M = 5.81, SD = .79$ for low users). To test if there

was an effect of eye-contact and video-link use on the therapeutic relationship and session evaluation, a MANOVA was performed with eye-contact (direct/no-direct/mixed) and video-link use (high/low) as the independent variables and empathy (ES), alliance (WAI) and session evaluation (SE) as the dependent variables. There was no statistically significant main effect of eye-contact, Wilks' Lambda = .900, $F(6,82) = 0.74$, $p = .618$, $\eta_p^2 = .051$, or video-link use, Wilks' Lambda = .272, $F(3,31) = 0.51$, $p = .680$, $\eta_p^2 = .036$, and no statistically significant interaction effect, Wilks' Lambda = .770, $F(6,62) = 1.91$, $p = .089$, $\eta_p^2 = .116$.

Alliance Agreement

The mean ratings on the WAI by the therapist (see Table 4.2) indicated little difference between the eye-contact conditions and calculation of confidence interval suggested the therapist ratings were with 95% certainty in the same range as the participants (for participants WAI ratings see Table 4.1) .

Table 4.2

Mean Score and Standard Deviations of Therapist- Rated Alliance as a Function of the Experimental Eye-Contact Conditions

	Range	Direct eye-contact ($n = 16$)	No-direct eye-contact ($n = 16$)	Mixed eye-contact ($n = 17$)
Working alliance	1-7	5.74 (0.64)	5.84 (0.44)	5.70 (0.90)

Intraclass correlations (ICC) of total WAI scores were used to evaluate therapist and participant agreement on the relationship for the three different eye-contact conditions. The ICCs showed significant positive correlations between the participants' and therapists' scores: for the direct eye-contact condition, $r(14) = .439$, $p = .039$, and the no-direct eye-contact, $r(14) = .437$, $p = .040$. However, for the mixed eye-contact condition there was much lower agreement, and the correlation was not statistically significant, $r(15) = .095$, $p = .353$.

Inter-video Therapy Motivation

Table 4.3 presents participants' motivation toward another Inter-video therapy session as a function of eye-contact. A 3 (Eye-contact: no-direct/direct/mixed) between subjects ANOVA was performed on Inter-video therapy motivation scores and revealed no significant effects of eye-contact on participants' motivation towards additional sessions ($F(2,46) = .58, p = .562, \eta_p^2 = .025$).

Table 4.3

Number of Participants with High, Some or Low Motivation Toward additional Inter-video Therapy Sessions, as a Function of Eye-contact

Motivation	Direct Eye-contact <i>n</i>	No direct Eye-contact <i>n</i>	Mixed Eye- contact <i>n</i>	Total <i>n</i>
High	3	5	5	13
Some	8	8	7	23
Low	5	3	5	13

To determine if participants with a higher degree of motivation had rated the relationship measures more favourably, three ANOVAs were conducted with motivation as the independent variable and the session measures (WAI, ES, SE) as the dependent variables (see Table 4.4 for mean scores). There was no statistically significant effect for empathy, $F(2,48) = 1.29, p = .286, \eta_p^2 = .053$, but there was a significant effect for alliance, $F(2, 46) = 9.56, p < .001, \eta_p^2 = .294$, and session evaluation $F(2, 46) = 5.38, p = .008, \eta_p^2 = .190$. Post-hoc analyses (Tukey HSD) showed participants with either high or some motivation ($p = .002$) had evaluated the working alliance higher than participants with low motivation (respectively $p = .001$ and $p = .002$), but there were no significant difference in alliance ratings between participant with high and with some motivation. Participants with high motivation also evaluated the session more highly than

participants with low motivation ($p = .006$), but there was no difference between participants with high and some motivation or some and low motivation.

Table 4.4

Mean Scores of Empathy, Working Alliance and Session Evaluation as a function of future Inter-video therapy motivation

Motivation	Empathy	Working alliance	Session Evaluation
High	4.96a	6.16a	5.79a
Some	4.93a	5.59a	5.32ab
Low	4.62a	5.11b	4.92b

Note: means within a column that share a subscript do not differ significantly from one another

Therapy Outcome Measures

As outlined in the method section, three therapy outcome measures were initially considered in this study: 1) Time-management score as rated pre and post the intervention (pre-post time-management), 2) participants' ratings of their own experience of improvement in study habits after the intervention (Improvement experience), and participants ratings of their perception and use of the planning sheet (Intervention experience). As can be seen in Table 4.6 there were only small differences in improvement and intervention experience between the three eye-contact conditions.

Table 4.6

Mean and Standard Deviations of Intervention and Improvement Experience as a function of eye-contact condition.

	Range	Direct eye-contact	No-direct eye-contact	Mixed eye-contact
Intervention experience	1-6	4.55 (0.81)	4.65 (0.69)	4.48 (0.87)
Improvement experience	1-6	4.11 (0.82)	4.42 (0.67)	4.53 (0.64)

To test if there was a change in time-management scores as rated pre and post the therapy session and if eye-contact had an effect on this change, a mixed ANOVA was conducted with eye-contact as the independent variable and time-management ratings as repeated independent variables (pre/post session). There was no significant effect of eye-contact, $F(2,46) = .58, p = .562, \eta_p^2 = .025$, and no interaction, $F(2,46) = .58, p = .562, \eta_p^2 = .025$. There was however a significant effect of time, $F(2,46) = .58, p = .562, \eta_p^2 = .025$, indicating that participants rated their time-management abilities higher before the session as compared to after the session ($M = 3.57, SD = 0.14$ vs. $M = 3.04, SD = 0.14$). An explanation for this negative change is provided in the discussion and the time-management outcome measure is not considered further in the results.

Effect of anticipated outcome on the outcome measures. As shown in Table 4.7 all participants anticipated that they would benefit or might possibly benefit from the Inter-video therapy session.

Table 4.7

Participants Outcome Anticipation

	Mean (Range 1-6)	Unlikely (1,2)	Somewhat unlikely/likely (3,4)	Likely (4,5)
Benefit of Inter-video therapy	4.41(.71)	0%	55.1%	44.9%

Preliminary ANOVAs indicated there was no statistically significant interaction between eye-contact and outcome anticipation on the outcome measures. Thus, to further test the effect of outcome anticipation on the two outcome measures, two independent *t*-tests were performed, with outcome anticipation as the independent measure, and respectively participants' intervention experience and perceived improvement as the dependent measures. Results showed that participants who thought it likely they would benefit from Inter-video therapy had significantly

higher scores on intervention experience, $t(47) = -2.1, p = .041, d = .611$, as compared to participants who thought it possible ($M = 4.36, SD = .72$ vs. $M = 4.82, SD = .79$). Similar results were obtained for perceived improvement, $t(47) = -2.93, p = .005, d = .854$, indicating that participants who thought it likely they would benefit from Inter-video therapy rated their perceived improvement higher ($M = 4.10, SD = .70$ vs. $M = 4.67, SD = .62$).

Expectations, Session Experience and Outcome

As indicated below, preliminary analyses were done for all reported correlations to determine whether there was a statistically significant difference between the correlation coefficient in the different eye-contact conditions. This was done by converting Pearson's r into z values and then calculating Z_{obs} to determine if this value was greater than 1.96 or less than -1.96 (for more detail on this procedure see for example Pallant, 2010). However, the sample size assumptions ($n > 20$) for making this calculation were not met increasing the risk of Type II error. For this reason, data were presented as a function of eye-contact group if the difference in the strength of the correlations exceeded the difference between what is usually considered a small effect size ($r = .10$) and a large effect ($r = .50$) (for a discussion of effect sizes see Cohen, 1992).

Expectations and session experience. To determine if there was a relationship between expectations (toward the therapist and Inter-video therapy) and the session measures, Pearson's correlations were computed. Preliminary analysis indicated there was no statistically significant difference between the correlations in the different eye-contact conditions and, for this reason, they are presented for the whole sample in Table 4.8. The correlations indicate the expected positive relationship between therapist expectations and the session variables. However, Inter-video therapy expectations were not significantly correlated with empathy, working alliance nor session evaluation.

Table 4.8

Pearson's Correlations of Expectations (Toward Inter-video Therapy and the Therapist) and Session Measures.

	Empathy	Working alliance	Session evaluation
Inter-video therapy	$r = .160$ $p = .271$	$r = .146$ $p = .316$	$r = .247$ $p = .087$
Therapist	$r = .489$ $p < .001$	$r = .493$ $p < .001$	$r = .575$ $p < .001$

Note: N=49

Expectations and outcome measures. To test if there was a relationship between expectations (respectively toward the therapist and Inter-video therapy) and the two outcome measures, Pearson's correlations were computed. Preliminary analysis indicated that, although there was no statistically significant difference between the correlations in the different eye-contact conditions, there were noteworthy differences in the correlations between expectations toward the therapist and intervention experience. For the direct and no-direct eye-contact condition, the correlations were large and statistically significant, respectively $r(14) = .666, p = .005$ and $r(14) = .527, p = .036$). However, for the mixed eye-contact condition, the correlation was very small and not statistically significant ($r(15) = .052, p = .849$).

In contrast, the correlations between therapist expectations and perceived outcome were in a similar range for all three eye-contact conditions, and for this reason, a single correlation was computed for the total sample. The correlation was statistically significant and large ($r(47) = .469, p < .001$).

Correlations between Inter-video therapy expectations and the two outcome measures were in similar range for the three eye-contact conditions and single correlations for the total

sample were computed indicating small and non-significant correlations; $r(47) = .153, p = .296$ for perceived improvement and $r(47) = .152, p = .303$ for intervention experience.

Session experience and outcome measures. To test if there was a relationship between the three session measures and the two outcome measures, additional Pearson's correlations were computed. Preliminary analyses indicated that, for the session measures and intervention experience, there were statistically significant differences in the strength and direction of the correlations between the eye-contact conditions. For this reason, the correlations for each measure and intervention experience are presented in Table 4.9 as a function of eye-contact. As evident in this table, the correlations are, for the direct eye-contact condition, statistically significant and large; for the no eye-contact condition, they are statistically non-significant and moderate to large; and for the mixed eye-contact condition small to large, but negative, with one statistically significant correlation.

Table 4.9

Pearson's Correlations between the Session Measures (ES, WAI, SE) and Intervention Experience as a Function of Eye-contact

	Direct Eye-contact (<i>n</i> = 16)	No direct Eye-contact (<i>n</i> = 16)	Mixed Eye-contact (<i>n</i> = 17)	Total sample (<i>N</i> = 49)
Empathy and Intervention experience	$r = .517$ $p = .040$	$r = .472$ $p = .065$	$r = -.486$ $p = .056$	$r = .126$ $p = .395$
Working alliance and Intervention experience	$r = .811$ $p = .000$	$r = .380$ $p = .147$	$r = -.586$ $p = .017$	$r = .157$ $p = .285$
Session evaluation and Intervention experience	$r = .635$ $p = .000$	$r = .397$ $p = .128$	$r = -.118$ $p = .663$	$r = .311$ $p = .032$

Preliminary analyses indicated no statistically significant differences between the eye-contact conditions with respect to the Pearson's correlations for the session measures and perceived improvement. A single correlation for the total sample was therefore calculated for each of the session measures, and statistically significant moderate to large correlations were

evident; $r(47) = .386, p = .006$ for empathy, $r(47) = .467, p = .001$ for alliance and $r(47) = .351, p = .014$ for session evaluation.

Open-ended Questions

More than half of the participants (76%) noted they had found the session useful or had enjoyed talking with the therapist. Also, a number of the participants (12%) indicated that it made them more aware of their study habits. A few participants (1-3) in each experimental condition provided a comment about eye-contact. All of these were provided under “Negative aspects of Inter-video therapy”. Interestingly, the comments were similar and related to self-reflections about whether to look into the camera or on the screen (e.g., “I found it difficult looking at the camera rather than the therapist's face on the screen. To her it looked as though I was looking down when I was looking directly at her on the monitor”).

4.03 Discussion

Consistent with Study 3 and past research (e.g., Bouchard et al., 2000; 2004; Germain et al., 2010, King, Bambling, Reid, & Thomas, 2006), the 3 session variables were in the high end of the scale in all experimental condition. In contrast to the hypothesis, there was no indication that participants in the mixed eye-contact condition had more positive Inter-video therapy experiences. Indeed, the complete absence of alliance agreement in this condition, and the unexpected finding of negative correlations between the session variables and the intervention experience, suggest the mixed eye-contact might have had an unintentional effect on the processes measures. This is discussed further below.

In contrast to Study 3, there was no statistically significant effect of eye-contact on the session variables and no interaction between eye-contact and shame or eye-contact and video-link use. The difference in the direction of the relationship between shame and empathy as a function of eye-contact was similar to Study 3. It is noteworthy that the direction for the mixed eye-contact condition was more comparable to the direct eye-contact condition than the no eye-contact

condition. Considering these tendencies, the results may provide some support that less rather than more eye-contact can be beneficial to clients with high levels of shame. An explanation for why there was a main effect of video-link use on the therapeutic relationship in Study 3, and not in the current study, might be related to differences within the grouping of participants with high and low video-link use. In study 3 there was a considerable difference in use between these two groups given that a high number of participants (66%) used a video-link at least weekly in the high use group and most participants in the low use group had never used a video-link (70%). In contrast, in the current study, very few participants in the low use group had never used a video-link (7%). Furthermore, there were not many participants in the high use group who used a video-link at least weekly (20%). These different percentages indicate that there was a much more pronounced difference in experience with a video-link use in Study 3, as compared to Study 4, and this may explain why there was a statistically significant effect of video-link use on the relationship variables only for Study 3.

The alliance agreement for the direct and no-direct eye-contact conditions was similar to Study 3 although slightly higher and statistically significant. The significant result found in the current study may be related to the larger number of participants included in each group. Interestingly, there was very low alliance agreement in the mixed eye-contact condition. This could be a consequence of the extra effort it took for the therapist to systematically vary her eye-contact, as this effort might have made it more difficult for her to tune in with the participant. However, another explanation could be that, in the mixed eye-contact condition, alliance may have been influenced by the participants' ability to tolerate a therapist who provided eye-contact only when she spoke and not when the participant spoke. This explanation is considered in more detail below (in relation to the discussion of the negative relationship, in the mixed eye-contact condition, between the session measures and intervention experience).

In contrast to Study 3, there were significant differences in session variables between participants with high, some and low motivation toward an additional session, suggesting that therapy processes such as alliance and session evaluation could have an influence on therapy adherence. Interestingly, the post-hoc analyses showed the difference was between high and low motivation (for session evaluation) and between some and low motivation (for alliance). In Study 3, zero participants were categorised as having low motivation. In contrast, in the current study, there were an equal number of participants with low and high motivation (13). This suggests variation in motivation was greater in Study 4 as compared to Study 3, and this may explain why there were statistically significant findings in the current study but not in Study 3. One explanation why a considerable number of participants in the current study had low motivation could be that most participants were recruited through the participant pool and therefore had to participate in research. In contrast, participants recruited for Study 3 were found via posters and email and therefore participants who decided to take part in the study might have had a specific interest in a therapy study.

Surprisingly, the pre-post measure of time-management was negative, despite participants on average indicating a perceived improvement in their time-management abilities and a positive experience of the time-management sheet. Participants' feedback suggested many had found the study useful because it had made them realise they studied less than they thought and often thought they could achieve more in an hour than was actually possible. This means that for a considerable number of participants the pre-post measure may reflect a change in time-management awareness rather than a negative change in time-management abilities. However, this may not have been the case for all participants. As such, it is uncertain what the measure assessed and for this reason it was not included in the outcome analysis.

As predicted, outcome anticipations did have an influence on the outcome measures. This finding indicates that, with respect to an intervention to improve study habits, outcome

expectations can have a direct effect on the extent to which this intervention is integrated. Also, outcome expectations can have an influence on the degree to which people experience an improvement in study habits. As outlined in Study 1, a higher degree of shame and video-link usage was associated with more favourable outcome expectations. Considering this association, future research may investigate in more detail to what extent outcome expectations mediate the potential benefits of Inter-video therapy for people with high levels of shame and prior video-link usage.

There were large and statistically significant correlations for therapist expectations and both the session and outcome variables, whereas the equivalent correlations were small and non-significant for Inter-video therapy expectations. Thus, although Inter-video therapy expectations specifically addressed how participants thought it would be to engage in the Inter-video modality, such expectations did not have an influence on the Inter-video therapeutic processes. This is consistent with other research indicating that variables specific to Inter-video therapy (e.g., feeling comfortable with video-link communication) do not influence Inter-video therapeutic processes such as alliance or outcome (Germain et al., 2009; 2010). Importantly, the current study did indicate expectations towards the relevant therapist - after having seen a photo the therapist - had a large influence on both therapeutic processes and outcome (although, there was no influence of therapist expectations on intervention experience for the mixed eye-contact condition which is consistent with the negative relationship between the session variables and this outcome measure). An explanation may be therapist expectations are more specific to the therapeutic relationship, and that it is the therapist, rather than the modality that influences people's therapeutic experience. This suggestion is consistent with prior research indicating that pre-therapy information about a therapist has an effect on therapeutic processes (Greenberg et al., 2006).

Unexpectedly, there were important differences in the direction of the correlations between the session measures and participants' perception and use of the central intervention (study time scheduling). In contrast to predictions the relationship between the session measures and this outcome measure was negative for the mixed eye-contact condition. Consequently, this finding requires further reflection. In the mixed eye-contact condition, the therapist moved from connection when she spoke (providing an experience of eye-contact) to disconnection when the participant spoke (breaking the experience of eye-contact) which could create a sense of the participants' words being less important than the therapist's words. Furthermore, it was the therapist, not the client, who regulated the change in connection, and it may therefore have removed the participant's sense of control and influence on the conversation. Considering this, the session variables in the mixed eye-contact condition may indirectly have assessed the extent to which participants were comfortable with a low level of control and influence. As such, participants who evaluated the session and the therapeutic relationship more highly might be less inclined to need control and therefore less likely to embrace a time-management work sheet, which could explain the negative correlation between the session measures and intervention experience. This explanation also justifies why the relationship between the session measures and the other outcome measure, perceived improvement, was positive. Noteworthy, considering the absence of any main effect of eye-contact on the session measures the results does not indicate the change in eye-contact interfered with the participants therapy experience.

Importantly, for what might be considered the "stable" eye-contact conditions (direct and no-direct) there was the expected positive relationship between session experience (alliance, empathy and session evaluation) and both outcome measures. This finding suggests the effect of the Inter-video therapeutic relationship on outcome may be similar to that of in-person therapy (Elliot et al., 2011; Horvath et al, 2011;) and highlight the importance of evaluating e-therapy processes within specific modalities. For example, there have been different reviews (Cavanagh

& Millings, 2013; Richard & Vigano, 2013) suggesting the e-therapeutic relationship may be less important to outcome as compared to in-person therapy. Importantly, this suggestion has primarily been based on text-based e-therapy (e.g., Knaevelsrud & Maercker; 2006). Furthermore, it has been proposed that session evaluation might be a better predictor of e-therapy outcome as compared to alliance, but this may also be more prominent for text-based therapy (e.g., King, Mambling, Reid, & Thomas, 2006). However, it is noteworthy that in this current study, the correlations for the total sample actually indicated that only session evaluation had an effect on intervention experience. Thus, had analysis only been done for the total sample, it would have supported the proposition that session impact is more important to e-therapy outcome. Given the many similarities between in-person and Inter-video therapy, it would not be surprising if the effect of the relationship in Inter-video therapy were more similar to in-person therapy, than what has been found for other e-therapy modalities. Nevertheless, Yuen et al. (2013) did not find any association between alliance and Inter-video therapy outcome. Importantly, in their meta-analysis of the effect of alliance on outcome, Horvath et al., (2011) found that one of the few statistically significant moderators of this relationship was time and the closer in time alliance and outcome were assessed the higher the correlation. Considering this finding, it is possible that the strong association found in this current study reflect that the session measures were assessed just a week prior to the outcome measures were collected.

Similar to Study 3 there was a negative relationship between shame and empathy in the direct eye-contact condition. Together Studies 3 and 4 may suggest that Inter-video therapists adjust their style of eye-contact (only look at the client on the screen) when they deliver therapy sessions to clients who struggle with high levels of shame. Future research may evaluate this further in more powerful studies (larger sample size). The current study also indicated that therapist and outcome expectations could be useful predictors of successful therapy processes and outcome, while expectations toward the Inter-video therapy experience may not be a useful

predictor. Finally, the study provided some reflections on how eye-contact, specifically mixed eye-contact, might inadvertently influence what session questionnaires such as alliance, empathy and session evaluation actually measure. In turn, this might influence the relationship between processes measures and outcome.

General Discussion and Conclusions

The aim of the presented research was to study the effect of different variables (e.g., video-link use, shame, therapist eye-contact) on central common therapeutic factors such as expectations and the therapeutic relationship within an Inter-video context. An additional purpose was to examine the relationship between expectations, the therapeutic relationship and therapeutic outcome. Practical objectives were to identify implications of the results with respect to successful promotion of Inter-video therapy, improvement of clients' Inter-video therapy experience and practitioner guidelines regarding eye-contact style.

This section of the thesis provides an overview and discussion of the results across the studies, and when possible proposes practical implications of the findings and directions for future research. Final reflections concern limitations and the thesis contributions with respect to Inter-video therapy research.

Expectations

Expectations were utilised as the dependent measure in Studies 1 and 2 to identify who would be more likely to commence Inter-video therapy. In Study 4 expectations were included as an independent measure to test the effect of expectations on engagement and outcome.

As hypothesised, and consistent with past in-person therapy research (e.g., Connolly Gibbons et al., 2003) Study 4 indicated expectations were positively related to outcome and participants experience of the therapeutic relationship. Importantly, in their review of expectations Constantantino et al. (2011) demonstrated different expectation measures (e.g., outcome expectations vs. treatment expectations) tend to have different effects on therapy. For example, in the majority of reviewed studies outcome expectations were associated with outcome, while process expectations were only associated with measures such as alliance. Consistent with this, the results of Study 4 indicated anticipated outcome had a direct effect on both outcome measures, while Inter-video therapy expectations did not. Unexpectedly, Inter-video therapy

expectations were also not associated with the therapeutic relationship or session evaluation. As considered in Study 4, this is consistent with Germain et al. (2010) who did not find any association between expectations toward the video modality and alliance. Importantly, specific expectations toward the actual therapist had a strong influence on the relationship, session evaluation and outcome. In consideration of the importance of therapist expectations, one way to increase Inter-video therapy usage and heighten session experience and outcome may be to enhance clients' expectations of therapist. In consideration of the positive effect of a therapist photograph on therapist expectations (Study 2), one route to do this could be to provide potential clients with a photograph of the therapist. Furthermore, both Study 1 and Study 2, indicated participants considered information about a therapist's qualification, experience and personal interests as important. For this reason, therapist expectations might increase when such information is a part of the pre-therapy engagement. This is consistent with in-person research indicating that both therapist qualifications and non-verbal features such as voice and personality can have an effect on expectations (Greenberg et al., 2006).

Consistent with other studies on e-therapy (e.g., Carper et al., 2013; Gun, Titov, & Andrews, 2011; Musiat et al., 2014; Rochlen et al., 2004; Travers & Benton, 2014), a strong preference for in-person therapy as compared to Inter-video therapy was indicated in Study 1. Furthermore, a majority of participants anticipated better outcomes from in-person therapy (e.g., 42.6% thought it likely they would benefit from in-person therapy while this was only the case for 14.7% with respect to Inter-video therapy). One explanation for this may be that people associate therapy with the in-person context and are sceptical of e-therapy because it is less common or familiar (Rochlen et al., 2004). Another explanation for the in-person preference may be that Inter-video therapy is considered inferior to in-person therapy and this could create an engagement barrier. One way to address this could be to provide new clients with information about the positive outcome of Inter-video therapy and e-therapy more generally.

As discussed in the Introduction, research consistently indicates that Inter-video therapy outcome is comparable to in-person therapy (e.g., Backhaus, 2012; Richardson, 2009; Simpson, 2009). For example, Richardson et al. (2009) reviewed treatment delivered via a video-link from 2003-2008 and concluded outcome was comparable to in-person therapy across a variety of clinical populations. Furthermore patients showed high levels of satisfaction and acceptance of the video modality (Richardson, 2009). Such information is relevant to share with potential Inter-video therapy clients as it may have a positive effect on engagement, therapeutic processes, outcome and therapy adherence. This is consistent with Gun et al. (2011) who proposed similar directions based on their study of e-therapy acceptability. They found that the most endorsed factor that would increase uptake of e-therapy, in both health professionals and lay people was information about the effectiveness of e-therapy. Additionally, Ebert, Berking, Cuijpers, Lehr, Pörtner, & Baumeister (2015) found that a 7 minute long video of an expert (psychology professor) and model client who provided information about the effectiveness and advantages (e.g., enhanced degree of anonymity) of e-therapy significantly increased acceptance of e-therapy for depression.

The positive association between shame levels and anticipated Inter-video outcome (Study 1) as well as Inter-video expectations suggested this modality might appear less threatening to people with higher levels of shame. It is noteworthy, that although there was only a small effect size of shame on outcome expectations, participants who rated it unlikely that they would benefit from Inter-video, were on average in a non-clinical range on the shame measure. In contrast those who rated it likely they would benefit were on average in a clinical range on this measure (Cook, 1994). High video-link users and people with positive in-person therapy expectations and video-link attitudes may be more likely to engage in Inter-video therapy because they tend to have more positive expectations toward Inter-video therapy (Study 1). Simpson, Richardson, and Pelling (2015) reported that video-link communication have gone

from occasional and unique to mainstream. Considering the association between video-link use, and positive Inter-video therapy expectations (Study 1) and experience (Study 3), it is likely this development will improve the delivery and experience of Inter-video therapy. Furthermore, the association between positive in-person and Inter-video therapy expectations implies that people may be able to shift from the in-person modality to the Inter-video modality if relevant to their circumstances (e.g., move town or travel). One explanation for why in-person and Inter-video expectations are closely related could be the similarity of these modalities with respect to therapist contact (e.g., synchronies in time, visual and audio non-verbal information). Future research may evaluate whether there is a negative association between in-person therapy and other e-therapy modalities. For example, it is possible negative in-person therapy expectations are associated with positive expectations toward e-therapy via a computer program. There were no differences in Inter-video therapy expectations (Study 1) between males and females and thus no indication females endorsed the Inter-video therapy modality more than males.

Similarity. An important hypothesis was that therapist-participant similarity could have a positive effect on Inter-video therapist expectations, and in Study 2 this was tested by an examination of how physical resemblance influenced therapist expectations. The hypothesis was not supported. Instead, there was a negative similarity effect, especially for males with prior experience to therapy. This group of males rated the therapist with similar facial features more negatively than the therapist without similar facial features.

However, participants without prior therapy experience did choose to work with the more similar therapist. Also, participants in Study 1 indicated a preference for a more familiar therapist and several participants noted that similarity was a characteristic they would look for in an Inter-video therapist. Thus, although physical similarity may not improve expectations, other similarities such as similar interest, same gender or similar personality might have a positive effect on Inter-video therapy expectations and experiences. Future research may examine this,

but, considering the aversive effect of physical similarity for males in a helping situation (Study 2; Van Vugt et al., 2010), the role of gender would be important to include.

Eye-contact and the Therapeutic Relationship

As previously discussed, non-verbal communication is considered important to therapeutic processes (e.g., Shea, 1998) and one concern regarding Inter-video therapy has been the distortion of eye-contact and its potential negative influence on the therapeutic relationship (e.g., Grayson & Munk, 2003; Jerome & Zaylor, 2000; Lozano et al., 2015). As technology has evolved the distortion has decreased with specific directions regarding placement of the camera, and Lozano et al. (2015) have suggested practitioners might mitigate the problem by alternating their gaze between the monitor and lens depending on who is speaking. Importantly, no prior research has systematically evaluated the effect of eye-contact on Inter-video therapeutic processes, and this thesis is the first to experimentally investigate this.

Considering the potential positive influence of eye-contact on in-person communication (Dowell & Berman; 2013; Ellsworth & Ross, 1975; Kleinke, 1986, Nguyen & Canny, 2009;) it was hypothesised that, as compared to no eye-contact, direct eye-contact would be associated with a more positive Inter-video therapy experience. There was only limited support for this hypothesis. Although, there was a main effect of eye-contact in Study 3, indicating more direct eye-contact was associated with higher empathy ratings, the finding was not reproduced in Study 4. Also, the effect in Study 3 was qualified by an interaction with shame suggesting that no direct eye-contact can be productive to therapy processes for client who struggle with shame.

One reason why direct eye-contact was not generally associated with a more positive session experience could be that the typical downcast eye-contact experience associated with video-link communication is perceived as eye-contact, especially for people who are used to this way of communicating. Also, the results from Study 1, indicated that although participants had a general preference for more eye-contact, their answers hovered around the scale midpoint and this

was especially true for the question, “prefer a therapist who engages in lots of eye-contact”. Thus, it is possible that the direct eye-contact condition provided too much eye-contact, indeed, some participants might have experienced this condition as being stared at through the whole session. However, the mixed eye-contact condition in Study 4 did not indicate that some, rather than none or consistent eye-contact, was associated with a more positive therapy experience as reflected in ratings of session evaluation and the therapeutic relationship. This may be related to how the mixed eye-contact condition was structured, which contrary to the intention could have created a power imbalance, and an experience of therapist rather than client importance (n.b., eye-contact was therapist controlled and only provided when the therapist spoke). Nevertheless, across eye-contact conditions participants had similar and positive inter-video therapy experiences and the most plausible implication of the findings is that people are flexible and tolerant of a different style of non-verbal behaviour when technology mediates communication and easily adapt to different degrees of eye-contact.

For therapists working in this area it will be useful to know that the downcast eye-contact associated with Inter-video therapy does not appear to have any negative influence on therapeutic processes. Indeed, the interaction between eye-contact and shame indicates down-cast eye-contact may be beneficial to therapeutic processes when working with people who struggle with shame. This is important because intense and chronic levels of shame have been associated with a number of psychological disorders (e.g., PTSD, depression, self-injury). Also it has been hypothesised that shame has a negative effect on the therapeutic relationship (e.g., Black, Curran, & Dyer, 2013; Gilbert, 2010). Limited studies have empirically examined the association between shame and alliance, but Black et al. (2013) studied this association in a clinical sample ($N = 50$) and found some support for a negative effect of shame on alliance. In Study 3 and 4 there was a small to moderate positive association between shame and the therapeutic relationship in the no eye-contact condition. Although this association was not statistically significant, the effect size of

the interaction between eye-contact and shame on empathy was large in both studies.

Consequently, it is possible decreased levels of eye-contact is part of why research has found some clients are more comfortable with Inter-video therapy and find it easier to open up and talk about their difficulties when communicating through a video-link. In addition, it is possible the interaction between eye-contact and shame is more pronounced in clinical samples where shame levels tend to be higher (e.g., Cook, 1994). Future research may consider this further, although it would be important to consider ethics when manipulating therapist eye-contact with clients who struggle with high levels of shame. Importantly, although less eye-contact may improve therapeutic processes for clients who experience high levels of shame, less eye-contact may also be counterproductive to therapeutic change because it may assist the client to engage in more “gaze”. Avoidance behaviour is usually negatively associated with psychological functioning and therapeutic outcome (for a recent review see Meier, 2014). Consequently, it is important Inter-video therapist are mindful that, although downcast eye gaze appears productive to initial engagement, it may be useful to engage in more direct eye contact over the course of therapy.

Consistent with prior studies (e.g., Bouchard et al., 2000, 2004; Caray et al., 2008; Day & Scheider, 2002; Germain et al., 2010; Simpson et al., 2005; Simpson et al., 2015), in Studies 3 and 4 a strong working alliance between the client and therapist was established within one Inter-video therapy session. Further, participants showed positive session evaluations similar to those found for in-person therapy (e.g., Lingardi et al., 2011), other e-therapy studies (e.g., Cohen & Barbara, 1999; Reynolds, Stiles, & Grohol, 2006) and Inter-video therapy (Morgan et al., 2008). In addition, and unique to the presented research, participants in Studies 3 and 4 also rated therapist-expressed empathy highly and in a range similar to that seen in in-person therapy (e.g., Elliot et al., 2011). It is encouraging that empathy too appeared to be readily communicated through a video-link. These findings indicate that there is a discrepancy between peoples’ actual experience of Inter-video therapy (very positive) and their perceptions of Inter-video therapy

(hesitant). This discrepancy highlights the previously discussed relevance of improving the perception of Inter-video therapy and associated expectations in order to increase usage of the video-link modality. This is especially important in situations where Inter-video therapy is more readily available than in-person therapy, such as in remote areas.

Importantly, the therapeutic topic in Studies 3 and 4 was simple and specific, and the participants were recruited from a student population rather than a clinical population. This could explain the very high rated session experiences (Study 3 & 4) because Inter-video therapy may be more acceptable to people when the therapeutic topic is simple and specific (Study 1) and because less client disturbance is associated with better alliance ratings (Tryon et al., 2007). It may also explain why no participants experienced any ruptures (Study 3). However, it is also possible that the high ratings were related to the style of intervention. The intervention in both Study 3 and Study 4 was very brief, and there is some evidence to suggest that more time-limited interventions are associated with a faster progression in the therapy processes (e.g., Reynolds et al., 1996; Shapiro, 2003). Nevertheless, the high ratings of therapeutic alliance is consistent with prior studies where Inter-video therapy was delivered over a longer period of time (e.g., 12 -16 sessions) and to a clinical population (e.g., Bouchard et al., 2004; Germain et al, 2010; Carey et al., 2008). Thus, research generally shows that clients endorse their Inter-video therapy experience.

Motivation and alliance agreement. Both working alliance and session evaluation had an effect on participants' motivation to engage in additional Inter-video therapy sessions (Study 4). For both measures the effect size was large and for the alliance measure the difference between participants with high and low motivation corresponded to a difference of "very often" as opposed to "often". A specific example of this difference would be "very often agree on what will be useful in therapy" compared to "often agree on what will be useful". This indicates that alliance may be important to monitor and can give relevant information about Inter-video therapy

adherence. One way to nourish Inter-video therapy processes is to collect client feedback regarding alliance (e.g., for reviews see Bohart & Tallman, 2010; Lambert & Shimokawa, 2016; Norcross, 2010). In addition to monitoring standard session feedback (e.g., “how relevant was today’s session”) it might also be useful to include feedback on clients’ experience of the Inter-video modality (e.g., “how easy was it to communicate through a video-link in this session”). Such information allows the Inter-video therapist to respond to any frustrations related to the modality (e.g., Lozano et al., 2015). Similarly, and consistent with other research (e.g., Lambert & Shimokawa, 2016) it is recommended clinicians talk with their clients about their Inter-video therapy experience and explicitly talk about the differences in eye-contact between normal conversations and conversations mediated by a video-link. For example, the open-ended questions indicated that one participant in the direct eye-contact condition was not sure whether to look into the camera or on the screen. Although only one participant commented on this it is possible that other participants also struggled with this and across Studies 3 and 4 several participants provided some comment related to eye-contact. Considering this, it may help clients to feel cared for and respected by the therapist if she/he makes initial statements such as: “talking through a video-link can be a little strange for some people and you probably noticed how we don’t have real eye-contact. Sometimes I try to look into the camera to provide a sense of eye-contact, but do let me know if this is disruptive to you”.

The importance of session feedback was also evident in Study 3 and 4 which demonstrated low to moderate alliance agreement. As previously discussed this level of alliance agreement is in a range similar to in-person therapy (Tryon et al., 2007), and highlights the therapist experience of Inter-video therapy alliance may be different to that of the client. Noteworthy, when the therapist had to vary her style of eye-contact (mixed eye-contact condition) there was no alliance agreement (Study 4), but this was most likely related to the unintended influence that therapist controlled shifts in eye-contact had on the alliance measure.

Effect of session experience on outcome. Study 4 indicated working alliance and session evaluation had an effect on Inter-video therapy motivation. In addition, for the stable eye-contact conditions (no and direct eye-contact) there were positive and strong correlations between the session experience (alliance, empathy and session evaluation) and outcome. As considered, prior research has suggested the relative importance of the e-therapeutic relationship may be diminished in e-therapy (Cavanagh & Millings, 2013; Sulaca et al., 2012). However, for Inter-video therapy it may not be diminished. One explanation for this might be that Inter-video therapy is more similar to in-person therapy than other e-therapy modalities. Importantly, for the mixed eye-contact condition there was a negative relationship between the session measures and intervention experience. Considering this an important and unique finding of the presented thesis concerns the role eye-contact may have on the association between alliance and outcome. Yuen et al. (2013), who investigated the relationship between alliance and outcome in Inter-video therapy, did not find any correlation between WAI and their three outcome measures of social anxiety (Pearson's correlations ranged from $-.10$ to $.03$). It is possible that the absence of a correlation in Yuen et al.'s study (2013) could be associated with how the Inter-video therapists' were managing their eye-contact in that study. Their eye-contact style might, similar to that in Study 4, have had an inadvertently effect on the relationship between alliance and changes in anxiety symptoms.

Lozano et al. (2015) suggested that Inter-video therapists might "alternate their gaze between the monitor the (camera) lens depending on whether they are speaking or listening or the patient" (p. 234). This suggestion implies a therapist controlled eye-contact style similar to the mixed eye-contact condition in Study 4. If this is indeed what Inter-video therapists tend to do, it is relevant to reflect on how that might influence results on the association between therapy processes such as alliance and outcome. Future research may examine this further, and it would be beneficial to the field if future Inter-video therapy outcome studies also considered processes

such as alliance and reported on the relationship between processes measures and outcome. Importantly, if no or a negative relationship is establish, therapist eye-contact style might be relevant to consider as an explanation for this.

Limitations

This section considers aspects of the reported research that may have limited the results and generalization of the findings.

Sample. Across the studies, participants were sampled from a student rather than a clinical population. This may have biased the results for different reasons. For example, clinical samples tend to have higher levels of shame than non-clinical samples (e.g., Cook, 1994), and in Study 3 it was evident the participants did not expect it would be difficult to talk about their therapy topic. As discussed, the interaction between shame and eye-contact might be more pronounced in a clinical sample, and it is recommended that future Inter-video therapy research consider the effect of shame on therapeutic processes.

Travers and Benton (2014) found that a non-clinical student sample was more hesitant toward e-therapy as compared to a clinical student sample. In consideration of this finding, the student samples included in the current research may have had more negative expectations and preferences toward Inter-video therapy as compared to clinical samples. However, expectations and acceptability of e-therapy may also vary between clinical samples. For example, Wootton, Titov, Dear, Spence, and Kemp (2011) studied acceptability of e-therapy in an adult sample with obsessive-compulsive disorder and found e-therapy was considered highly acceptable ($N = 135$). In contrast, Ebert et al. (2015) found low acceptability among depressed patients ($N = 128$). This variation in clinical samples suggests that a student sample's perception of Inter-video therapy is not necessarily on a different spectrum to a clinical population.

An advantage of studying a student sample has been the opportunity to focus the research on limited problem areas (e.g., exam anxiety, time-management, study doubt). This might have

strengthened the internal validity of the research, but does warrant reflections on the extent to which the results can be generalised to clinical samples, i.e., “external validity”. Importantly, rather than dichotomise between a “clinical sample” and “student sample” it may be more adequate to consider students and “real clients” as people who have struggles on a continuum (for a discussion of categorical versus dimensional approaches to psychopathology see for example Kessler, 2002). It is recommended that future research continue to study the effect of specific disorders and degree of disturbance on e-therapy expectations.

Measures. To improve some of the measures, specifically created for this research, and to make them flow better in the individual questionnaires, some scales were changed between studies. The unintended consequence was some degree of inconsistency between the studies. For example, in study 2 the ten items used to measure therapist expectations were rated on a 4-point scale. In Study 4 this was changed to a 6-point scale because several other measures in this questionnaire was rated on a 6-point scale (e.g. Empathy) and the increased range was on reflection considered to improve the accuracy of the therapist expectation measure. To ensure some degree of consistency follow-up analyses were performed to convert the 6-point scale to a 4-point scale. The result indicated the mean of the non-morphed image in Study 4 was in the same range as the morphed images in Study 2 ($M = 2.89$, $SD = 0.37$).

Statistics. When many statistical analyses are performed there is an increased risk of Type I error, the risk of finding a significant difference between two groups when there is no difference (e.g., Stevens, 2009). For this reason it can be necessary to control for Type I error, but it is important to keep in mind that there is an important relationship between Type I error, statistical power (the probability of making a correct decision) and Type II error (the risk of not finding a significant difference when there is a difference). Furthermore, just as the risk of Type I errors increases with multiple analyses, so does the risk of making Type II errors. Especially in clinical research, where sample sizes are often low, there is an increased risk of insufficient power and

making Type II errors (Rossi, 1990; Stevens, 2009). In such cases Stevens (2009) suggested it might be relevant to adjust alpha levels to .10 or .15.

In this thesis several analyses were performed in each study and it is therefore relevant to reflect on the risk of Type I error. Although sample sizes, and accordingly power, have been low, the stance has been to not make the alpha level more liberal, but also not make it more conservative. In addition, when possible, the risk of Type I error has been reduced by following Stevens's (2009) recommendation to utilising ANOVA rather than multiple t-tests, and MANOVAs rather than multiple ANOVAs.

Also, reducing the number of dependent measures, by analysing total scores rather than subscales, reduced the number of relevant analyses (e.g., the total Working Alliance Inventory was examined rather than each subscale). An inadvertently consequence of this was that some specific details were lost. Furthermore, in Studies 3 and 4 decisions were made to exclude analyses of the effect of client characteristics such as sex and prior therapy experience on the session measures. A consequence of this decision was a decrease in connections between the studies (i.e., variables central to Studies 1-2 were not taken into account in Studies 3 and 4¹⁴).

Technology and the Inter-video therapeutic environment. Inter-video therapy can be delivered through different types of software (e.g. Skype, Tandberg). In this research, Skype was employed to deliver the therapeutic intervention and this choice could have had an impact on the quality of the communication and the generalizability of the results to other software. Skype, in contrast to professional programs like Tandberg, is a freely available programme, but at the mercy of Internet speed and transmission quality, and closed videoconferenced programs tend to provide better visual and audio quality. Nevertheless, as considered in Studies 3 and 4 the overall evaluations of the quality of the call were very high and did not differ between the experimental

¹⁴ In reality, analyses were performed to test the effect of sex and prior therapy experience. These were originally performed to create a better flow between the Studies, but because of the risk of type I error and issues with power they were not included in the final thesis.

conditions. For this reason the technology employed is not likely to have had any specific negative influence on the results.

Apart from eye-contact, Jerome and Zaylor (2000) identified several other variables likely to influence the Inter-video therapeutic environment such as view (head vs. head, shoulders and arms), image and screen size, lightning and movement. Also, the role of the “picture in picture” and volume and could have an influence on communication (for a discussion see Lozano et al., 2015). Likewise physical location may have a significant effect on comfort, convenience and ability to engage in the therapeutic process. For example, there may be a great difference between engaging in Inter-video therapy from home as opposed to coming into a clinic, and there may be advantages and disadvantages for both. All these factors are important to consider and they may interact with the role of eye-contact. Future research may examine the more specific role these factors play in the delivery and experience of Inter-video therapy.

Novel Contributions

The presented research is the first to investigate the effect of eye-contact on Inter-video therapeutic processes and examine the directional relationship of participants self-reports of shame on the Inter-video therapeutic relationship. Uniquely this research demonstrated some positive benefits of downcast eye-contact on therapy outcome for people who are prone to shame. In addition, the research is the first to include a measure of Inter-video therapist expressed empathy, as rated by the participants. The results suggested, similar to alliance, that empathy can be conveyed and perceived through a video-link. The presented research is also the first to identify a positive effect of self-reported levels of shame on Inter-video therapy outcome expectations. Other novel contributions concern the important role of specific therapist expectations on Inter-video therapeutic processes and outcome, and the potential opportunity to enhance these expectations through a photograph. Finally, the research provided unexpected results and reflections on how eye-contact may influence the association between the therapeutic

relationship and outcome. These reflections provide important potential recommendations for the interpretation of future studies on the relationship between alliance and Inter-video therapy outcome.

References

- Amstadter, A. B., Broman-Fulks, J., Zinzow, H., Ruggiero, K. J., & Cercone, J. (2009). Internet-based interventions for traumatic stress-related mental health problems: A review and suggestion for future research. *Clinical Psychology Review, 29*, 410-420. doi: 10.1016/j.cpr.2009.04.001
- Ang, R. P., Lim, K. M., Tan, A-G., & Yau, T. Y. (2004). Effects of gender and gender role orientation on help-seeking attitudes. *Current Psychology: A Journal for Diverse Perspectives on Diverse Psychological Issues, 23*, 203-214. doi: 10.1007/s12144-004-1020-3
- Andersson, G. (2009). Using the internet to provide cognitive behaviour therapy. *Behaviour Research and Therapy, 47*, 175-180. Doi: 10.1016/j.brat.2009.01.010
- Asch, S. E. (1946). Forming impressions of personality. *Journal of Abnormal and Social Psychology, 41*, 258-90.
- Ax, R. K., Fagan, T. J., Magaletta, P. R., Morgan, R. D., Nussbaum, D., & White, T. W. (2007). Innovations in correctional assessment and treatment. *Criminal Justice And Behavior, 34*, 893-905. doi:10.1177/0093854807301555
- Backhaus, A., Agha, Z., Maglione, M. L., Repp, A., Ross, B., Zuest, D.,... Thorp, S. R. (2012). Videoconferencing psychotherapy: A systematic review. *Psychological Services, 9*, 111-131. doi: 10.1037/a0027924
- Bailenson, J. N., Iyengar, S., Yee, N., & Collins, N. A. (2008). Facial similarity between voters and candidates causes influence *Public Opinion Quarterly, 72*, 935-961. doi:10.1093/poq/nf
- Black, R. A., Curran, D., & Dyer, K. W. (2013). The impact of shame on the therapeutic alliance and intimate relationships. *Journal Of Clinical Psychology, 69*, 646-654. doi:10.1002/jclp.21959

- Bambling, M., King, R., Reid, W., & Wegner, K. (2008). Online counselling: The experience of counsellors providing synchronous single-session counselling to young people. *Counselling & Psychotherapy Research*, 8, 110-116. doi:10.1080/14733140802055011
- Barak, A., Hen, L., Boniel-Nissim, M., & Shapira, N. (2008). A comprehensive review and a meta-analysis of the effectiveness of Internet-based psychotherapeutic interventions. *Journal of Technology in Human Services*, 26, 109-160. doi: 10.1080/15228830802094429
- Barak, A., Klein, B., & Proudfoot, J. (2009). Defining Internet-supported therapeutic interventions. *Annals of Behavioral Medicine* 38, 4-17. doi: 10.1007/s12160-009-9130-7
- Barrett- Lennard, G.T., The relationship inventory now: Issues and advances in theory, method and use. In L. S. Greenberg & W. M. Pinsof (Eds.) *The psychotherapeutic process: A research handbook* (439-476). New York: Guilford Press, 1986.
- Barrett- Lennard, G. T. (2003). Steps on a mindful journey. Person centred expressions, Ross-on-Wye, UK: PCCS Books
- Beutler, L. E. (2002). The Dodo bird is extinct. *Clinical Psychology: Science and Practice*, 9, 30-34. doi: 10.1093/clipsy.9.1.30
- Bohart, A.C., & Greenberg, L.S. (1997). Empathy: Where are we and where do we go from here? In A.C. Bohart & L.S. Greenberg (Eds.), *Empathy reconsidered: New directions in psychotherapy* (pp. 419-50). Washington, DC: American Psychological Association.
- Bohart, A. C., & Tallman, K. (2010). Clients: The neglected common factor in psychotherapy. In B. L. Duncan, S. D. Miller, B. E. Wampold & M. A. Hubble (Eds.), *The heart and soul of change: Delivering what works in therapy (2nd ed.)*. (pp. 83-111). Washington, American Psychological Association.
- Bohart, A. C., Elliott, R., Greenberg, L. S., Watson, J. C., & Norcross, J. C. (2002).

Empathy. In J. C. Norcross (ed), *Psychotherapy relationships that work: Therapist contributions and responsiveness to patients*. (pp. 89-108). New York, NY US: Oxford University Press.

Bordin, E. S. (1979). The generalizability of the psychoanalytic concept of the working alliance. *Psychotherapy: Theory, Research & Practice*, 16, 252-260. doi: 10.1037/h0085885

Bouchard, S., Payeur, R., Rivard, V., Allard, M., Paquin, B., Renaud, P., Goyer, L. (2000). Cognitive behavior therapy for panic disorder with agoraphobia in videoconference: Preliminary results. *CyberPsychology & Behavior*, 3, 999-1007. doi: 10.1089/109493100452264.

Bouchard, S., Paquin, B., Payeur, R., Allard, M., Rivard, V., Fournier, T.,... Lapierre, J. (2004). Delivering cognitive-behavior therapy for panic disorder with agoraphobia in videoconference. *Telemedicine Journal and E-Health*, 10, 13-24. doi: 10.1089/153056204773644535

Bouchard, S., Robillard, G., Marchand, A., Renaud, P., & Riva, G. (2007). Presence and the bond between patients and their psychotherapists in the cognitive-behavior therapy of panic disorder with agoraphobia delivered in videoconference. *Proceedings of the 10th Annual International Workshop on Presence, Barcelona*, 89-95. Retrieved from http://www.temple.edu/ispr/prev_conferences/proceedings/2007/

Bryman, A. (2006). Integrating quantitative and qualitative research: How is it done? *Qualitative Research*, 6(1), 97-113. doi: 10.1177/1468794106058877

Burger, J. M., Messian, N., Patel, S., del Prado, A., & Anderson, C. (2004). What a coincidence! The effects of incidental similarity on compliance. *Personality and Social Psychology Bulletin*, 30, 35-43. doi: 10.1177/0146167203258838

Busseri, M. A., & Tyler, J. D. (2003). Interchangeability of the Working Alliance Inventory

and Working Alliance Inventory, Short Form. *Psychological Assessment*, 15(2), 193-197.

doi <http://dx.doi.org/10.1037/1040-3590.15.2.193>

Carey, J. C., Wade, S. L., & Wolfe, C. R. (2008). Lessons learned: The effect of prior technology use on web-based interventions. *CyberPsychology & Behavior*, 11, 188-195.

doi: 10.1089/cpb.2007.0025

Carlbring, P., & Andersson, G. (2006). Internet and psychological treatment. How well can they be combined? *Computers in Human Behavior*, 22, 545-553. doi:

10.1016/j.chb.2004.10.009

Carper, M. M., McHugh, R. K., Barlow, D. H. (2013). The dissemination of computer-based psychological treatment: A preliminary analysis of patient and clinician perceptions. *Administration and Policy in Mental Health and Mental Health Services Research* 40(2):

87-95. doi 10.1007/s10488-011-0377-5

Castelnuovo, G., Gaggioli, A., Mantovani, F., & Riva, G. (2003). New and old tools in psychotherapy: The use of technology for the integration of the traditional clinical treatments. *Psychotherapy: Theory, Research, Practice, Training*, 40(1-2), 33-44.

doi:10.1037/0033-3204.40.1-2.33

Cavanagh, K., & Millings, A. (2013). (Inter)personal computing: The role of the therapeutic relationship in e-mental health. *Journal of Contemporary Psychotherapy*, 43, 197-202. doi:

10.1007/s10879-013-9242-z

Cecero, J. J., Fenton, L. R., Frankforter, T. L., Nich, C., & Carroll, K. M. (2001). Focus on therapeutic alliance: The psychometric properties of six measures across three treatments. *Psychotherapy: Theory, Research, Practice, Training*, 38, 1-11. doi:

10.1037/0033-3204.38.1.1

Chambless, D. L. (2002). Beware the dodo bird: The dangers of overgeneralization.

Clinical Psychology: Science and Practice, 9, 13-16. doi 10.1093/clipsy/9.1.13

- Chambless, D. L., & Ollendick, T. H. (2001). Empirically supported psychological interventions: Controversies and evidence. *Annual Review of Psychology*, 52, 685-716. Cohen, J. (1992). A power primer. *Psychological Bulletin*, 112, 155-159. doi:10.1037/0033-2909.112.1.155
- Cohen, G. E. & Kerr, B. A. (1999). Computer-mediated counseling: An empirical study of a new mental health treatment. *Computers in Human Services*, 15(4): 13-26, doi 10.1300/J407v15n04_02
- Cook, D.R. (1994). *Internalized Shame Scale – Technical manual*. Multi-Health Systems Inc. North Tonawanda, New York.
- Connolly Gibbons, M. B., Crits-Christoph, P., de la Cruz, C., Barber, J. P., Siqueland, L., & Gladis, M. (2003). Pretreatment expectations, interpersonal functioning, and symptoms in the prediction of the therapeutic alliance across supportive-expressive psychotherapy and cognitive therapy. *Psychotherapy Research*, 13(1), 59-76. doi 10.1093/ptr/kpg007
- Constantino M.J., Glass, C.R., Arnkoff, D.B., Ametrano R.M., & Smith, J. Z. (2011). Expectations. In J. Norcross (ed.), *Psychotherapy relationships that work: Evidence-based responsiveness (2nd ed.)*. (pp. 354-376). New York, Oxford University Press. doi: 10.1093/acprof:oso/9780199737208.003.0002
- Cuijpers, P., van Straten, A., & Andersson, G. (2008). Internet-administered cognitive behavior therapy for health problems: A systematic review. *Journal of Behavioral Medicine*, 31, 169-177. doi 10.1007/s10865-007-9144-1
- Day, S. X., & Schneider, P. L. (2002). Psychotherapy using distance technology: A comparison of face-to-face, video, and audio treatment. *Journal of Counselling Psychology*, 49, 499-503. doi: 10.1037/0022-0167.49.4.499
- Delsignore, A. (2008). Does prior psychotherapy experience affect the course of cognitive-

- behavioural group therapy for social anxiety disorder? *The Canadian Journal of Psychiatry*, 53, 509-516. doi 10.1037/t00741-000.
- DeBruine, L. M. (2002). Facial Resemblance Enhances Trust, *Proceedings of the Royal Society of London B*, 269, 1301-1312. doi 10.1098/rspb.2002.2034 1471-2954
- DeBruine, L. M. (2004). Resemblance to self increases the appeal of child faces to both men and women. *Evolution and Human Behavior*, 25, 142-154. doi: <http://dx.doi.org/10.1016/j.evolhumbehav.2004.03.003>
- DeFife, J.A. & Hilsenroth, M. J. (2011). Starting off on the right foot: Common factor elements in early psychotherapy process. *Journal of Psychotherapy Integration*, 21, 172-191. doi 10.1037/a0023889
- Duncan, B.L. (2010). Prologue: Saul Rosensweig: The founder of common factors. In B. L. Duncan, S. D. Miller, B. E. Wampold & M. A. Hubble (Eds.), *The heart and soul of change: Delivering what works in therapy (2nd ed.)*. (pp. 3-23). Washington: American Psychological Association.
- Dorahy, M., Gorgas, J., Hanna, D., & Wiingaard, S. U. (2015) Perceptions of therapist responses to shame disclosures by clients: A quasi-experimental investigation with non-clinical participants. *Counselling and Psychotherapy Research: Linking research with practice*, 15(1), 58–66. doi: 10.1002/capr.12004
- Dowell, N. M., & Berman, J. S. (2013). Therapist nonverbal behavior and perceptions of empathy, alliance, and treatment credibility. *Journal of Psychotherapy Integration*, 23, 158-165.
- Duan, C., & Kivlighan, D. M., Jr. (2002). Relationships among therapist pre-session mood, therapist empathy, and session evaluation. *Psychotherapy Research*, 12(1), 23-37. doi: 10.1093/ptr/12.1.23
- Dunn, T. L., Casey, L.M., Sheffield, J., Newcombe, P., Chang, A. B. (2012). Dropout from

computer-based interventions for children and adolescents with chronic health conditions.

Journal of Health Psychology, 17, 429-442. Doi: 10.1177/1359105311415558

Ebert, D. D., Berking, M., Cuijpers, P., Lehr, D., Pörtner, M., & Baumeister, H. (2015).

Increasing the acceptance of internet-based mental health interventions in primary care patients with depressive symptoms. A randomized controlled trial. *Journal of Affective Disorders*, 176, 9-17. doi: 10.1016/j.jad.2015.01.056

Elliott, R., Bohart, A. C., Watson, J. C., & Greenberg, L. S. (2011). Empathy

Psychotherapy relationships that work: Evidence-based responsiveness (2nd ed.). (pp. 132-152). New York, NY US: Oxford University Press.

Ellsworth, P., & Ross, L. (1975). Intimacy in response to direct gaze. *Journal of*

Experimental Social Psychology, 11, 592-613. Doi 10.1016/0022-1031(75)90010-4

Fischer, E. H., & Turner, J. L. (1970). Orientations to seeking professional help:

Development and research utility of an attitude scale. *Journal of Consulting and Clinical Psychology*, 35, 79-90. doi: 10.1037/h0029636

Fisher, J. D., & Nadler, A. (1974). The effect of similarity between donor and recipient on recipient's reactions to aid. *Journal of Applied Social Psychology*, 4, 230-243.

doi: 10.1111/j.1559-1816.1974.tb02643.x

Fisher, J. D., Harrison, C. L., Nadler, A. (1978). Exploring the generalizability of donor-

recipient similarity effects. *Personality and Social psychology Bulletin*, 4, 627-630. doi: 10.1177/014616727800400428.

Fisher, J. D., Nadler, A., & Whitcher-Alagna, S. (1982). Recipient reactions to aid.

Psychological Bulletin, 91, 27-54. doi: 10.0033-2909/82/9101-0027S00.75

Fridrici, M., Lohaus, A., & Glas, C. (2009). Effects of incentives in web-based prevention

for adolescents: Results of an exploratory field study. *Psychology & Health*, 24, 663-675.

doi: 10.1080/08870440802521102

- Fullwood, C. (2007). The effect of mediation on impression formation: A comparison of face-to-face and video-mediated conditions. *Applied Ergonomics*, 38, 267-273. doi: 10.1016/j.apergo.2006.06.002
- Fullwood, C., & Doherty-Sneddon, G. (2006). Effect of gazing at the camera during a video link on recall. *Applied Ergonomics*, 37, 167-175. doi:10.1016/j.apergo.2005.05.003
- Furnham, A., & Swami, V. (2008). Patient preferences for psychological counsellors: Evidence of a similarity effect. *Counselling Psychology Quarterly*, 21, 361-370. doi: 10.1080/09515070802602146
- Furnham, A., & Wardley, Z. (1990). Lay theories of psychotherapy I: Attitudes toward, and beliefs about, psychotherapy and therapists. *Journal of Clinical Psychology*, 46, 878-890. doi: 10.1002/1097-4679(199011)46
- Gamble, N., Boyle, C., & Morris, Z. A. (2015). Ethical practice in telepsychology. *Australian Psychologist*, 50(4), 292-298. doi: 10.1111/ap.12133
- Gelso, C. J., & Carter, J. A. (1994). Components of the psychotherapy relationship: Their interaction and unfolding during treatment. *Journal of Counseling Psychology*, 41, 296-306.
- Germain, V., Marchand, A., Bouchard, S., Guay, S., & Drouin, M.-S. (2010). Assessment of the therapeutic alliance in face-to-face or videoconference treatment for posttraumatic stress disorder. *Cyberpsychology, Behavior, and Social Networking*, 13(1), 29-35. doi: 10.1089/cyber.2009.0139
- Germain, V., Marchand, A., Bouchard, S., Drouin, M., & Guay, S. (2010). Effectiveness of cognitive behavioural therapy administered by videoconference for posttraumatic stress disorder. *Cognitive Behaviour Therapy*, 38(1), 42-53, doi: 10.1080/10926771.2011.562479
- Gilbert, P. (2010). *Compassion-focussed therapy*. London, England: Routledge
- Grayson, M. D., & Monk, A. F. (2003). Are you looking at me? Eye contact and desktop

video conferencing *ACM Transactions on Computer-Human Interaction* 10, 221 – 243. doi: 10.1145/937549.937552

Green, S. M., Hadjistavropoulos, T., & Sharpe, D. (2008). Client personality characteristics predict satisfaction with cognitive behavior therapy. *Journal of Clinical Psychology*, 64(1), 40-51, doi 10.1002/jclp.20429

Gun, S. Y., Titov, N., & Andrews, G. (2011). Acceptability of Internet treatment of anxiety and depression. *Australasian Psychiatry*, 19, 259-264. doi: 10.3109/10398562.2011.562295

Greenberg, R. P., Constantino, M. J., & Bruce, N. (2006). Are patient expectations still relevant for psychotherapy process and outcome? *Clinical Psychology Review*, 26, 657-678. doi 10.1016/j.cpr.2005.03.002

Griffiths, F., Lindenmeyer, A. Powell, J., Lowe, P., & Thorogood, M. (2006). Why are health care interventions delivered over the Internet? A systematic review of the published literature. *Journal of Medical Internet Research*, 8(2), e12-20. doi 10.2196/jmir.8.2.e10

Guéguen, N., Martin, A. I., & Meineri, S. b. (2011). Similarity and social interaction: When similarity fosters implicit behavior toward a stranger. *The Journal of Social Psychology*, 151, 671-673.

Hamburger, Y. A., & Ben-Artzi, E. (2000). The relationship between extraversion and neuroticism and the different uses of the Internet. *Computers in Human Behavior*, 16, 441–449. Doi 10.1016/S0747-5632(00)00017-0

Horvath, A. O., Re, A. C. D., Fluckiger, C., & Symonds, D. (2011). Alliance in individual psychotherapy. In J. Norcross (ed.), *Psychotherapy relationships that work: Evidence-based responsiveness (2nd ed.)*. (pp. 25-69). New York, Oxford University Press. doi: 10.1093/acprof:oso/9780199737208.003.0002

Horvath A. O., & Symonds, B. D. (1991). Relation between working alliance and outcome

in psychotherapy: A meta-analysis. *Journal of Counseling Psychology*, 38(2), 139-149. doi: 10.1037/0022-0167.38.2.139

Horvath, A. O., & Greenberg, L. S. (1989). Development and validation of the Working Alliance Inventory. *Journal of Counseling Psychology*, 36(2), 223-233.

Hubble, M. A., Duncan, B. L., Miller, S. D & Wampold, B. E. (2010). Introduction. In B. L. Duncan, S. D. Miller, B. E. Wampold & M. A. Hubble (Eds.), *The heart and soul of change: Delivering what works in therapy (2nd ed.)*. (pp. 23-46). Washington, American Psychological Association.

Jerome, L. W., & Zaylor, C. (2000). Cyberspace: Creating a therapeutic environment for telehealth applications. *Professional Psychology: Research and Practice*, 31, 478-483. doi: 10.1037/rt735-7028.31.5-478

Jiang, L., Hoegg, J., Dahl, D. W., & Chattopadhyay, A. (2010). The persuasive role of incidental similarity on attitudes and purchase intentions in a sales context. *Journal of Consumer Research*, 36, 778-791. doi 10.1086/605364

Kaufman, G. (1996). *The psychology of shame: Theory and treatment of shame-based syndromes (2nd ed.)*. New York, NY, US: Springer Publishing Co.

Kelly, H. H., (1950). Warm-cold variable in first impressions of persons. *Journal of Personality*, 18, 431-39.

Kessler, R. C. (2002). The categorical versus dimensional assessment controversy in the sociology of mental illness. *Journal Of Health And Social Behavior*, 43, 171-188. doi:10.2307/3090195

King, R., Bambling, M., Reid, W., & Thomas, I. (2006). Telephone and online counselling for young people: A naturalistic comparison of session outcome, session impact and therapeutic alliance. *Counselling & Psychotherapy Research*, 6(3), 175-181.

Kiropoulos, L. A., Klein, B., Austin, D. W., Gilson, K., Pier, C., Mitchell, J., Ciechomski, L.

- (2008). Is internet-based CBT for panic disorder and agoraphobia as effective as face-to-face CBT? *Journal of Anxiety Disorders*, 22, 1273-1284. doi: 10.1016/j.janxdis.2008.01.008
- Kivlighan, D. M., Marmarosh, C., & Hilsenroth, M. J. (2014). Client and therapist therapeutic alliance, session evaluation, and client reliable change: A moderated actor-partner interdependence model. *Journal of Counseling Psychology* 61(1), 15-23, doi: 10.1037/a0034939
- Kleinke, C. L. (1986). Gaze and eye contact: A research review. *Psychological Bulletin*, 100, 78-100. doi: 10.1037/0033-2909.100.1.78.
- Knaevelsrud, C., & Maercker, A. (2006). Does the quality of the working alliance predict treatment outcome in online psychotherapy for traumatized patients? *Journal of Medical Internet Research*, 8(4). doi: 10.2196/jmir.8.4.e31
- Kuusisto, K., Knuuttila, V., & Saarnio, P. (2011). Pre-treatment expectations in clients: Impact on retention and effectiveness in outpatient substance abuse treatment. *Behavioural and Cognitive Psychotherapy*, 39, 257-271.
- Lambert, M. J., & Shimokawa, K. (2016). Collecting client feedback. In A. E. Kazdin, A. E. Kazdin (Eds.) , *Methodological issues and strategies in clinical research (4th ed.)* (pp. 361-372). Washington, DC, US: American Psychological Association. doi:10.1037/14805-023
- Larsen, R. J., & Shackelford, T. K. (1996). Gaze avoidance: Personality and social judgments of people who avoid direct face-to-face contact. *Personality and Individual Differences*, 21, 907-917. doi: 10.1016/S0191-8869(96)00148-1
- Laska, K.M., & Wampold, B.E., (2014). Ten things to remember about common factor theory. *Psychotherapy*, 51, 519-524. doi: [10.1037/a0038245](https://doi.org/10.1037/a0038245)
- Laska, K.M., Gurman, A.S, & Wampold, B.E., (2014). Expanding the lens of evidence-based

practice in psychotherapy: A common factor perspective. *Psychotherapy*, 51, 467-481.

doi: 10.1037/a0034332

Leibert, T., Archer, J., Jr., Munson, J., & York, G. (2006). An exploratory study of client perceptions of Internet counseling and the therapeutic alliance. *Journal of Mental Health Counseling*, 28, 69-83. Retrieved from web.a.ebscohost.com/ehost

Lingiardi, V., Colli, A., Gentile, D., & Tanzilli, A. (2011). Exploration of session process: Relationship to depth and alliance. *Psychotherapy*, 48(4), 391-400. doi: 10.1037/a0025248

Lozano, B. E., Birks, A. H., Kloezezan, K., Cha, N., Morland, L. A., & Tuerk, P. W. (2015).

Therapeutic alliance in clinical videoconferencing: Optimizing the communication context. In P. W. Tuerk, P. Shore, P. W. Tuerk & P. Shore (Eds.), *Clinical videoconferencing in telehealth: Program development and practice*. (pp. 221-251).

Cham, Switzerland: Springer International Publishing.

Luborsky, L., Rosenthal, R., Diguer, L., Andrusyna, T. P., Berman, J. S., Levitt, J. T.,... Krause, E.D. (2002). The dodo bird verdict is alive and well - mostly. *Clinical Psychology: Science and Practice*, 9, 2-12. doi 10.1093/clipsy/9.1.2

Luborsky, L., Crits-Christoph, P., Mintz, J., & Auerbach, A. (1988). *Who will benefit from psychotherapy? Predicting therapeutic outcomes*. New York, NY US: Basic Books.

Mallen, M. J., Day, S. X., & Green, M. A. (2003). Online versus face-to-face conversation: An examination of relational and discourse variables. *Psychotherapy: Theory, Research, Practice, Training*, 40(1-2), 155-163. doi:10.1037/0033-3204.40.1-2.155

Manhal-Baugus, M. (2001). E-therapy: Practical, ethical, and legal issues. *Cyberpsychology & Behavior*, 4, 551-563. doi:10.1089/109493101753235142

Marmarosh, C. L., & Kivlighan D. M. (2012). Relationships among client and counselor

agreement about the working alliance, session evaluations, and change in client symptoms using response surface analysis. *Journal of Counseling Psychology*, 59, 352-367, doi 10.1037/a0028907

Mast, M. S. (2007). On the importance of nonverbal communication in the physician- patient interaction. *Patient Education and Counseling*, 67, 315-318. doi: 10.1016/j.pec.2007.03.005

Meier, S. T. (2014). Rediscovering the role of avoidance in psychotherapy progress and outcome. *Professional Psychology: Research And Practice*, 45(3), 212-217. doi:10.1037/a0036916

Miller, R. S., & Lefcourt, H. M. (1982). The assessment of social intimacy. *Journal of Personality Assessment*, 46, 514-518.

Mitchell, J. E., Crosby, R. D., Wonderlich, S. A., Crow, S., Lancaster, K., Simonich, H.,... Myers, T. C. (2008). A randomized trial comparing the efficacy of cognitive-behavioral therapy for bulimia nervosa delivered via telemedicine versus face-to-face. *Behaviour Research and Therapy*, 46, 581-592. doi: 10.1016/j.brat.2008.02.004

Mitchell, J. E., Myers, T., Swan-Kremeier, L., & Wonderlich, S. (2003). Psychotherapy for bulimia nervosa delivered via telemedicine. *European Eating Disorders Review*, 11, 222-230, doi 10.1002/erv.517

Merten, J. R. (2005). Facial microbehavior and the emotional quality of the therapeutic relationship. *Psychotherapy Research*, 15(3), 325-333. doi: 10.1080/10503300500091272

Montoya, R. M., Horton, R. S., & Kirchner, J. (2008). Is actual similarity necessary for attraction? A meta-analysis of actual and perceived similarity. *Journal of Social and Personal Relationships*, 25, 889-922. doi: 10.1177/0265407508096700

Morgan, R. D., Patrick, A. R., & Magaletta, P. R. (2008). Does the use of telemental health alter

the treatment experience? Inmates' perceptions of telemental health versus face-to-face treatment modalities. *Journal of Consulting and Clinical Psychology*, 76, 158-162. doi: 10.1037/0022-006X.76.1.158

Mukawa, N., Oka, T., Arai, K., & Yuasa, M. (2005). What is connected by mutual gaze? – user's behavior in video-mediated communication. *Proceedings of CHI'05, USA*, 1677-1680. doi: 10.1145/1056808.1056995

Muran, J. C., Safran, J. D., Gorman, B. S., Samstag, L. W., Eubanks-Carter, C., & Winston, A. (2009). The relationship of early alliance ruptures and their resolution to process and outcome in three time-limited psychotherapies for personality disorders. *Psychotherapy: Theory, Research, Practice, Training*, 46(2), 233-248.

Murphy, L., Parnass, P., Mitchell, D. L., Hallett, R., Cayley, P., & Seagram, S. (2009). Client satisfaction and outcome comparisons of online and face-to-face counselling methods. *British Journal Of Social Work*, 39, 627-640. doi:10.1093/bjsw/bcp041

Musiat, P., Goldstone, P., & Tarrier, N. (2014). Understanding the acceptability of e-mental health - attitudes and expectations towards computerised self-help treatments for mental health problems. *BMC Psychiatry*, 14. doi: 10.1186/1471-244X-14-109

Nadler, A., Fisher, J. D., & Streufert, S. (1976). When helping hurts: Effects of donor- recipient similarity and recipient self-esteem on reactions to aid. *Journal of Personality*, 44, 392-409. doi: 10.1111/j.1467-6494.1976.tb00129.x

Nathanson, D. L. (1992). *Shame and pride*. New York: Norton.

Nguyen, D. T., & Canny, J. (2005). MultiView: Spatially faithful group video conferencing. *Proceedings of the 2005 ACM Conference on Human Factors in Computing Systems, USA*, 799-808.

Nguyen, D. T., & Canny, J. (2007). Multiview: improving trust in group video conferencing.

Proceedings of the 2007 ACM Conference on Human Factors in Computing Systems, USA, 1465-1474.

Nguyen, D. T., & Canny, J. (2009). More than face-to-face: Empathy effects of video framing.

Proceedings of the CHI'09 Conference on Human Factors in Computing Systems, USA, 423-432. doi: [10.1145/1518701.1518770](https://doi.org/10.1145/1518701.1518770)

Norcross, J. C. (2010). The therapeutic relationship. In B. L. Duncan, S. D. Miller, B. E.

Wampold & M. A. Hubble (Eds.), *The heart and soul of change: Delivering what works in therapy (2nd ed.)*. (pp. 83-111). Washington, American Psychological Association.

Norcross, J. C., & Lambert, M. J. (2011). Evidence-based therapy relationships. In J. C. Norcross

(Ed.), *Psychotherapy relationships that work: Evidence-based responsiveness (2nd ed.)*.

New York: Oxford University Press. doi: [10.1093/acprof:oso/9780199737208.003.0001](https://doi.org/10.1093/acprof:oso/9780199737208.003.0001)

O'Reilly, R., Bishop, J., Maddox, K., Hutchinson, L., Fisman, M., & Takhar, J. (2007). Is

telepsychiatry equivalent to face-to-face psychiatry? Results from a randomized controlled equivalence trial. *Psychiatric Services*, 58, 836-843. doi [10.1176/appi.ps.58.6.836](https://doi.org/10.1176/appi.ps.58.6.836)

Pallant, J. (2010). *SPSS survival manual*. NY, US: Open University Press.

Park, J. H., & Schaller, M. (2005). Does attitude similarity serve as a heuristic cue for kinship?

Evidence of an implicit cognitive association. *Evolution and Human Behavior*, 26(2), 158-170. doi [10.1016/j.evolhumbehav.2004.08.013](https://doi.org/10.1016/j.evolhumbehav.2004.08.013)

Paxton, S. J., McLean, S. n. A., Gollings, E. K., Faulkner, C., & Wertheim, E. H. (2007).

Comparison of face-to-face and internet interventions for body image and eating problems in adult women: An RCT. *International Journal of Eating Disorders*, 40, 692-704. doi [10.1002/eat.20446](https://doi.org/10.1002/eat.20446)

Pelling, N. (2009). The use of email and the internet in counselling and psychological service:

What practitioners need to know. *Counselling, Psychotherapy, and Health*, 5(1), 1-25.

Pesale, F. P., Hilsenroth, M. J., & Owen, J. J. (2012). Patient early session experience and

treatment outcome. *Psychotherapy Research*, 22, 417-425. doi:

10.1080/10503307.2012.662607

Proudfoot, J., Ryden, C., Everitt, B., Shapiro, D. A., Goldberg, D., Mann, A.,...Gray, J. A.

(2004). Clinical efficacy of computerised cognitive-behavioural therapy for anxiety and depression in primary care: Randomised controlled trial. *The British Journal of*

Psychiatry, 185, 46-54. doi 10.1192/bjp.185.1.46

Rees, C. S., & Haythornthwaite, S. (2004). Telepsychology and videoconferencing: Issues, opportunities and guidelines for psychologists. *Australian Psychologist*, 39, 212-219.

doi:10.1080/00050060412331295108

Rees, C. S., & Stone, S. (2005). Therapeutic alliance in face-to-face versus videoconferenced psychotherapy. *Professional Psychology: Research and Practice*, 36, 649-653. doi:

10.1037/0735-7028.36.6.649

Reynolds, D. A. J., Jr., Stiles, W. B., & Grohol, J. M. (2006). An investigation of session impact and alliance in internet based psychotherapy: Preliminary results. *Counselling &*

Psychotherapy Research, 6(3), 164-168.

Reynolds, S., Stiles, W. B., Barkham, M., Shapiro, D. A., Hardy, G. E., & Rees, A. (1996).

Acceleration of changes in session impact during contrasting time-limited

psychotherapies. *Journal of Consulting and Clinical Psychology*, 64(3), 577-586. doi:

10.1037/0022-006X.64.3.577

Richards, D. & Vigano, N. (2013). Online counselling: A narrative and critical review of

the literature, *Journal of Clinical Psychology*, 69, 994-1011. doi 10.1002/jclp.21974

Richardson, L. K., Frueh, B. C., Grubaugh, A. L., Egede, L., & Elhai, J. D. (2009).

Current directions in videoconferencing tele-mental health research. *Clinical Psychology:*

Science and Practice, 16, 323-338. doi: 10.1111/j.1468-2850.2009.01170.x

Richardson T., Stallard P, Velleman, S. (2010). Computerised cognitive behavioural therapy for

the prevention and treatment of depression and anxiety in children and adolescents: A systematic review. *Clinical Child and Family Psychology Review*, 13, 275-290. doi: 10.1007/s10567-010-0069-9

Ritterband, L. M., & Tate, D. F. (2009). The science of internet interventions. *Annals of Behavioral Medicine*, 38, 1-3. doi: 10.1007/s12160-009-9132-5

Rochlen, A. B., Beretvas, S. N., & Zack, J. S. (2004a). The on-line and face-to-face counseling attitudes scales: A validation study. *Measurement and Evaluation in Counseling and Development*, 37, 95-111. Retrieved from:
<http://connection.ebscohost.com/c/articles/13901269/online-face-to-face-counseling-attitudes-scales-validation-study>

Rochlen, A. B., Land, L. N., & Wong, Y. J. (2004b). Male restrictive emotionality and evaluations of online versus face-to-face counseling. *Psychology of Men & Masculinity*, 5, 190-200. doi: 10.1037/1524-9220.5.2.190

Rogers, C. R. (1957). The necessary and sufficient conditions of therapeutic personality change. *Journal of Consulting Psychology*, 21(2), 95-103. doi: 10.1037/h0045357

Rosenberg, M. (1965). *Society and the adolescent self-image*. Middletown, England Wesleyan University Press.

Rosenzweig, S. (1936). Some implicit common factors in diverse methods of psychotherapy. *American Journal of Orthopsychiatry*, 6, 412-415. doi: 10.1111/j.1939-0025.1936.tb05248.x

Rossi, J. S. (1990). Statistical power of psychological research: What have we gained in 20 years? *Journal of Consulting and Clinical Psychology*, 58, 646-656. doi 10.1037/0022-006X.58.5.646

Safran, J. D., Muran, J. C., & Eubanks-Carter, C. (2011). Repairing alliance ruptures In J.

Norcross (ed.), *Psychotherapy relationships that work: Evidence-based responsiveness* (2nd ed.). (pp. 224–238). New York, Oxford University Press. doi

10.1093/acprof:oso/9780199737208.003.0002

Saunders, S. M., Howard, K. I., & Orlinsky, D. E. (1989). The therapeutic bond scales: Psychometric characteristics and relationship to treatment effectiveness. *Psychological Assessment: A Journal of Consulting and Clinical Psychology*, 1, 323-330.

Sharples, C. F., & Sagris, A. (1995). Does eye contact increase counselor-client rapport? *Counselling Psychology Quarterly*, 8(2), 145-155.

Sharples, C. F., Jeffrey, A. M., & McMahon, T. (2006). Counsellor facial expression and client-perceived rapport. *Counselling Psychology Quarterly*, 19, 343-356.

Shea, S.C. (1998). *Psychiatric Interviewing - the art of understanding* (2nd edition). Philadelphia, US, W.B. Saunders Company.

Simpson, S., Bell, L., Knox, J., & Mitchell, D. (2005). Therapy via videoconferencing: A route to client empowerment? *Clinical Psychology and Psychotherapy*, 12, 156-165. doi: 10.1002/cpp.436

Simpson, S., Bell, L., Britton, P., Mitchell, D., Morrow, E., Johnstone, L.A., Brebner, J. (2006). Does video therapy work? A single case series of bulimic disorders. *European Eating Disorder Review*, 14, 226-241. 10.1002/erv.686

Simpson, S. (2009). Psychotherapy via videoconferencing: A review. *British Journal of Guidance & Counselling*, 37, 271-286. doi: 10.1080/03069880902957007

Simpson, S., & Reid, C. (2014). Therapeutic alliance in videoconferencing psychotherapy: A review. *Australian Journal of Rural Health*, 22, 280–299. doi:10.1111/ajr.12149

Simpson, S., Richardson, L. K., & Pelling, N. (2015). Introduction to the special issue telepsychology: Research and practice. *Australian Psychologist*, 50, 249-251. doi: 10.1111/ap.12146

- Simpson, S., Guerrini, L., & Rochford, S. (2015). Telepsychology in a university psychology clinic setting: A pilot project. *Australian Psychologist*, 50, 285-291. doi: 10.1111/ap.12131
- Spek, V., Cuijpers, P., Nyklíček I., Riper, H., Keyzer, J., & Pop, V. (2007). Internet-based cognitive behaviour therapy for symptoms of depression and anxiety: A meta-analysis. *Psychological Medicine: A Journal of Research in Psychiatry and the Allied Sciences*, 37, 319-328. doi: 10.1017/S0033291706008944
- Stevens, J. (2009). *Applied multivariate statistics for the social sciences (5th edition)*. New Jersey, US. Lawrence Erlbaum Associates.
- Stiles, W. B. (1980). Measurement of the impact of psychotherapy sessions. *Journal of Consulting and Clinical Psychology*, 48, 176-185. doi: 10.1007/s12160-009-9132-5
- Stiles, W. B., Shapiro, D. A., & Firth-Cozens, J. A. (1990). Correlations of session evaluations with treatment outcome. *British Journal of Clinical Psychology*, 29(1), 13-21. doi: 10.1111/j.2044-8260.1990.tb00844.x
- Stiles, W. B., Reynolds, S., Hardy, G. E., Rees, A., Barkham, M., & Shapiro, D. A. (1994). Evaluation and description of psychotherapy sessions by clients using the Session Evaluation Questionnaire and the Session Impacts Scale. *Journal of Counseling Psychology*, 41(2), 175-185.
- Stofle, G. S. (2001). *Choosing an online therapist: A step-by-step guide to finding professional help on the Web*. White Hat Communications.
- Stokes, A., & Jones, G. (2009). *Online Counselling, a handbook for practitioner*. Palgrave Macmillan, Hampshire, UK.
- Sucala, M., Schnur J. B., Constantino M. J., Miller S. J., Brackman E. H., & G. H., M. (2012). The therapeutic relationship in e-therapy for mental health: A Systematic Review. *Journal of Medical Internet Research*, 14, e110. doi:10.2196/jmir.2084

- Suler, J. (2004). The online disinhibition effect. *CyberPsychology & Behavior*, 7, 321- 326. doi: 10.1089/1094931041291295
- Suler, J. (2008). Cybertherapeutic theory and techniques. In A. Barak (ed), *Psychological Aspects of Cyberspace – Theory, Research, Applications*. New York, US, Cambridge University Press, 102-128. doi 10.1017/CBO9780511813740.006
- Swift, J. K., Callahan, J. L., & Vollmer, B. M. (2011). Preferences. In J. Norcross (ed.), *Psychotherapy relationships that work: Evidence-based responsiveness (2nd ed.)*. (pp. 301–315). New York, Oxford University Press. doi 10.1093/acprof:oso/9780199737208.003.0002
- Taylor, S. E., & Mettee, D. R. (1971). When similarity breeds contempt. *Journal of Personality and Social Psychology*, 20, 75-81. doi: 10.1037/h0031691
- Travers, M. F., & Benton, S. A. (2014). The acceptability of therapist-assisted, internet-delivered treatment for college students. *Journal of College Student Psychotherapy*, 28(1), 35-46. doi: 10.1080/87568225.2014.854676
- Tryon, G. S., Blackwell, S. C., Hammel, E. .F. (2007). A meta-analytic examination of client-therapist perspectives of the working alliance. *Psychotherapy Research*, 17(6), 629-642, doi: 0.1080/10503300701320611
- Tuerk, P. W., Yoder, M. Ruggiero, K. J., Gros, D. E., Acierno, R. (2010). A pilot study of prolonged exposure therapy for posttraumatic stress disorder delivered via telehealth technology. *Journal of Traumatic Stress*, 23, 116-123. doi: 10.1002/jts.20494
- Upsdell, T. G., Pelling, N. J., & Campbell, A. (2012). Australian Internet-based counseling services and their ethical compliance: what practitioners need to know. *Counselling, Psychotherapy, and Health*, 7(1), 14-48.
- Vessey, J. T., Howard, K. I. (1993). Who seeks psychotherapy? *Psychotherapy: Theory,*

Research, Practice, Training, 30, 546-553. DOI: 10.1037/0033-3204.30.4.546

Van Vugt, H. C., Bailenson, J. N., Hoorn, J. F., & Konijn, E. A. (2010). Effects of facial similarity on user responses to embodied agents. *ACM Transactions on Computer-Human Interaction*, 17(2), 1-27. doi: 10.1145/1746259.1746261

Vandromme, H., Hermans, D., & Spruyt, A. (2011). Indirectly measured self-esteem predicts gaze avoidance. *Self and Identity*, 10(1), 32-43.

Wittson, C., Affleck, D., & Johnson, V. (1961). Two-way television in group therapy. *Mental Hospitals*, 2, 22-23. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=psyh&AN=1962-06659-001&site=ehost-live>

Wootton, B. M., Titov, N., Dear, B. F., Spence, J., & Kemp, A. (2011). The acceptability of internet-based treatment and characteristics of an adult sample with obsessive compulsive disorder: An internet survey. *PLoS ONE*, 6(6) e20548. . doi: 10.1371/journal.pone.0020548

Young, K. S. (2005). An empirical examination of client attitudes towards online counseling. *CyberPsychology & Behavior*, 8, 172-177. doi: 10.1089/cpb.2005.8.172

Yuen, E. K., Herbert, J. D., Forman, E. M., Goetter, E. M., Juarascio, A. S., Rabin, S., . . .

Bouchard, S. (2013). Acceptance based behavior therapy for social anxiety disorder through videoconferencing. *Journal of Anxiety Disorders*, 27(4), 389-397. doi: 10.1016/j.janxdis.2013.03.00